Lin-Hendel et. al. v Saudi Aramco et. al.

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Exhibit 1:

US Patent 7,308,653 as published by USPTO (25 pages), an first and claims pages of the other 6 patents in this patent family 7,712,044, 8,108,792, 8,850,352, 9,053,205, 9,405,852 and 10,296,198 (19 pages) which share the same specification with 7,308,653.

Priority date of these patents is 1/20/2001.

Application date of the first issued patent is 1/19/2002

Terms extended/adjusted by 615 days.

(A total of 44 pages)

US007308653B2

(12) **United States Patent**
Lin-Hendel

(10) **Patent No.: US 7,308,653 B2**
(45) **Date of Patent: Dec. 11, 2007**

(54) **AUTOMATED SCROLLING OF BROWSER CONTENT AND AUTOMATED ACTIVATION OF BROWSER LINKS**

(76) Inventor: **Catherine Lin-Hendel**, 18850 Blythswood Dr., Los Gatos, CA (US) 95030

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 615 days.

(21) Appl. No.: **10/052,692**

(22) Filed: **Jan. 19, 2002**

(65) **Prior Publication Data**

US 2002/0126155 A1 Sep. 12, 2002

Related U.S. Application Data

(60) Provisional application No. 60/262,998, filed on Jan. 20, 2001.

(51) **Int. Cl.**
G06F 3/00 (2006.01)

(52) **U.S. Cl.** **715/785**; 715/854; 715/784; 715/833; 715/501.1; 709/217

(58) **Field of Classification Search** 345/786, 345/785; 709/217; 715/784–786, 854, 856, 715/862, 833, 501.1, 512
See application file for complete search history.

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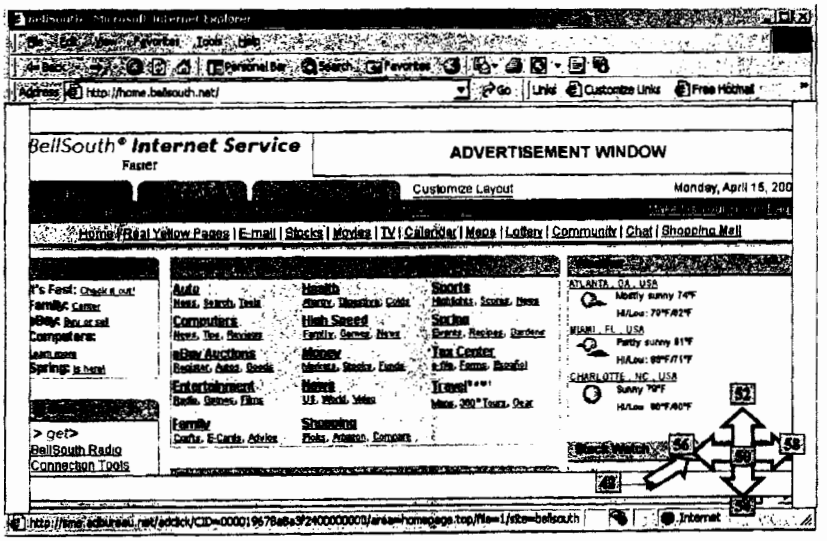
Primary Examiner—X. L. Bautista
(74) *Attorney, Agent, or Firm*—Jean-Marc Zimmerman

(57) **ABSTRACT**

An automatic scrolling mechanism that converts the passive browser/web/computer media or any other information repository into an active media that can actively present and "push" information to the users/viewers while retaining the browser/web media's existing "pull" and interactivity functions. The same mechanism applied in TV/Video Media can give the TV/Video Media interactivity. The automatic scrolling can be controlled by placing a cursor on various control icons, such as a respective end of a floating border structure. The structure may be a box or a line. Furthermore, the structure may be a cluster of arrows, or other symbols. In operation, while the cursor is on the respective end, automatically scrolling occurs to bring forth the content that extends beyond the field of view of the browser display window into view. As the content is scrolled, the content is moved into the field of view of the browser display window in a predetermine direction designated by the respective end. Sub-windows are also designed to be independently and automatically scrolled or floated with respect to the content of the main browser window. Furthermore, this invention automatically activates links created in an information repository, actively retrieves the linked information, and automatically present and scroll the retrieved information to the users/viewers of the repository. As the content is automatically scrolled, the repository is pushed to the user and allured to further navigate there through the repository.

33 Claims, 17 Drawing Sheets



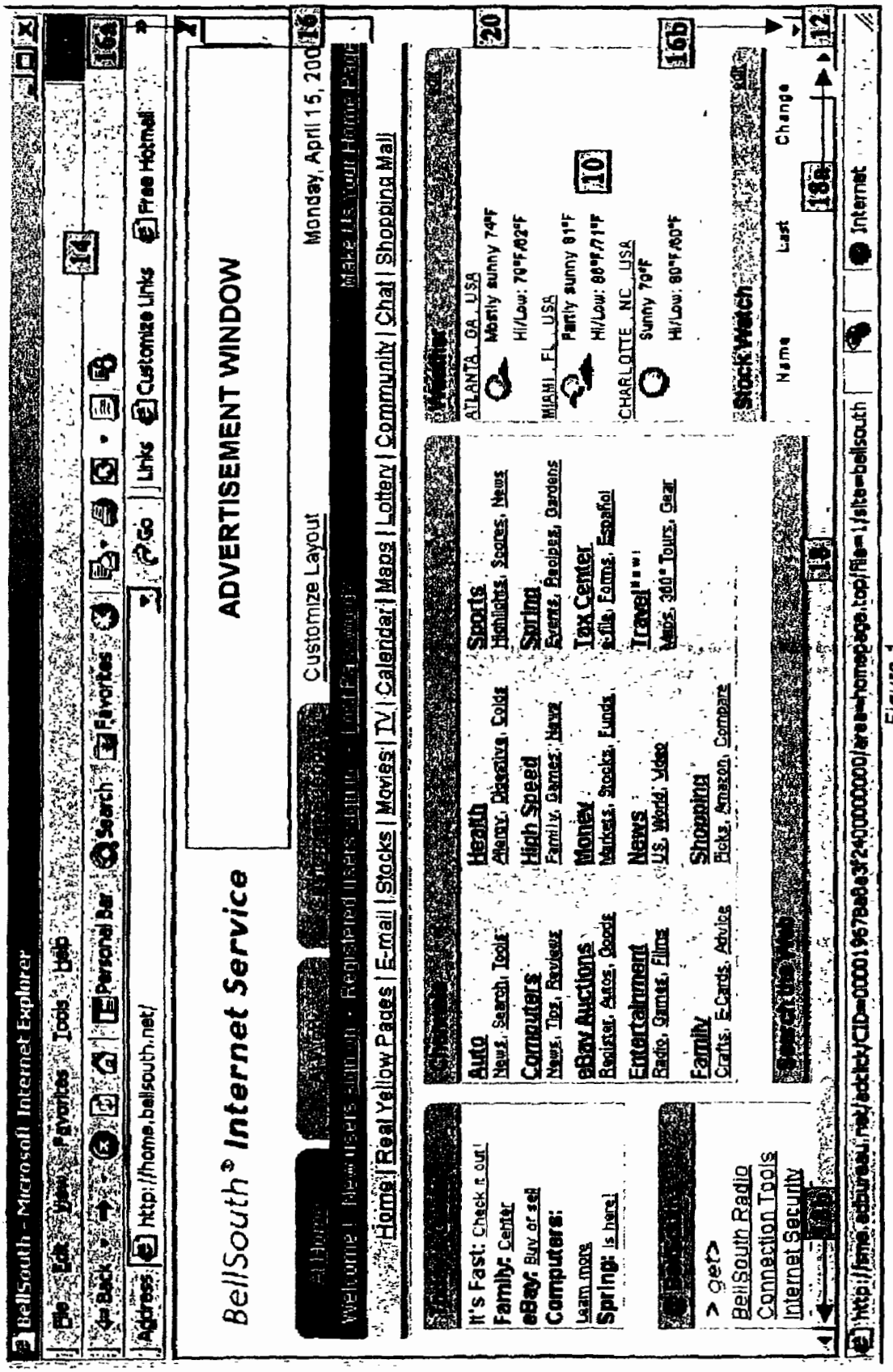

BellSouth - Microsoft Internet Explorer
BellSouth® Internet Service
ADVERTISEMENT WINDOW
Customize Layout
Monday, April 15, 200
Home | Real Yellow Pages | E-mail | Stocks | Movies | TV | Calendar | Maps | Lottery | Community | Chat | Shopping Mall
Health
Sports
High Speed
Spring
Money
Tax Center
News
Travel
Auto
Computers
eBay Auctions
Entertainment
Family
Shopping
ATLANTA, GA, USA
Mostly sunny 74°F
Hi/Low: 79°F/62°F
MIAMI, FL, USA
Partly sunny 81°F
Hi/Low: 86°F/71°F
CHARLOTTE, NC, USA
Sunny 79°F
Hi/Low: 80°F/60°F
Stock Watch
Name
Last
Change
BellSouth Radio
Connection Tools
Internet Security
Internet
14
16a
16b
10
20
18a
12

Figure 1

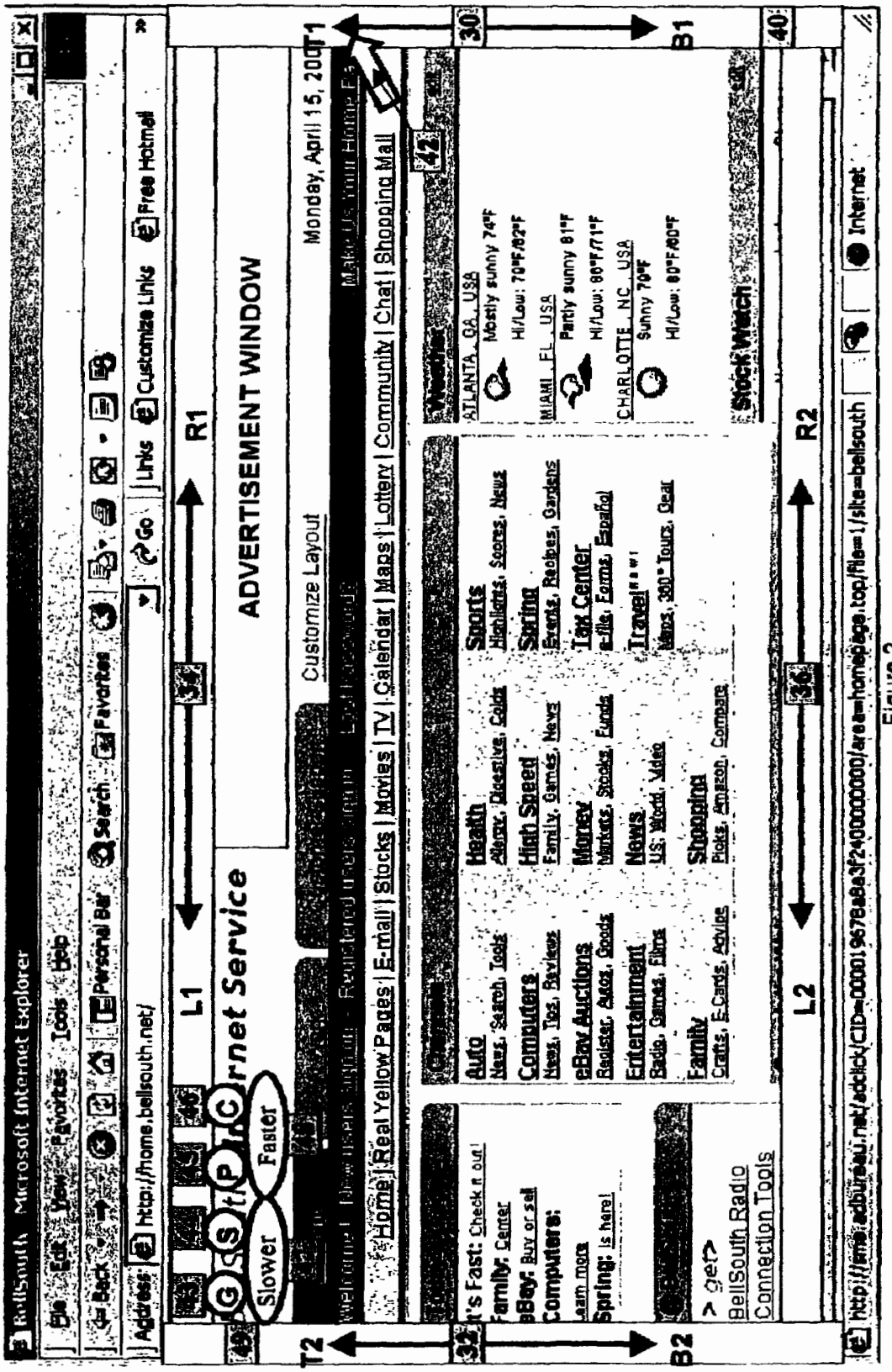

BellSouth Microsoft Internet Explorer
ADVERTISEMENT WINDOW
Customize Layout
Monday, April 15, 2007
Home | Real Yellow Pages | E-mail | Stocks | Movies | TV | Calendar | Maps | Lottery | Community | Chat | Shopping Mall
Auto
Health
Sports
Computers
High Speed
Spring
eBay Auctions
Money
Tax Center
Entertainment
News
Travel
Family
Shopping
Weather
Stock Watch
ATLANTA, GA, USA
Mostly sunny 74°F
Hi/Low: 70°F/62°F
MIAMI, FL, USA
Partly sunny 81°F
Hi/Low: 86°F/71°F
CHARLOTTE, NC, USA
Sunny 79°F
Hi/Low: 80°F/60°F
BellSouth Radio
Connection Tools
L1
L2
R1
R2
T1
T2
B1
B2

Figure 2

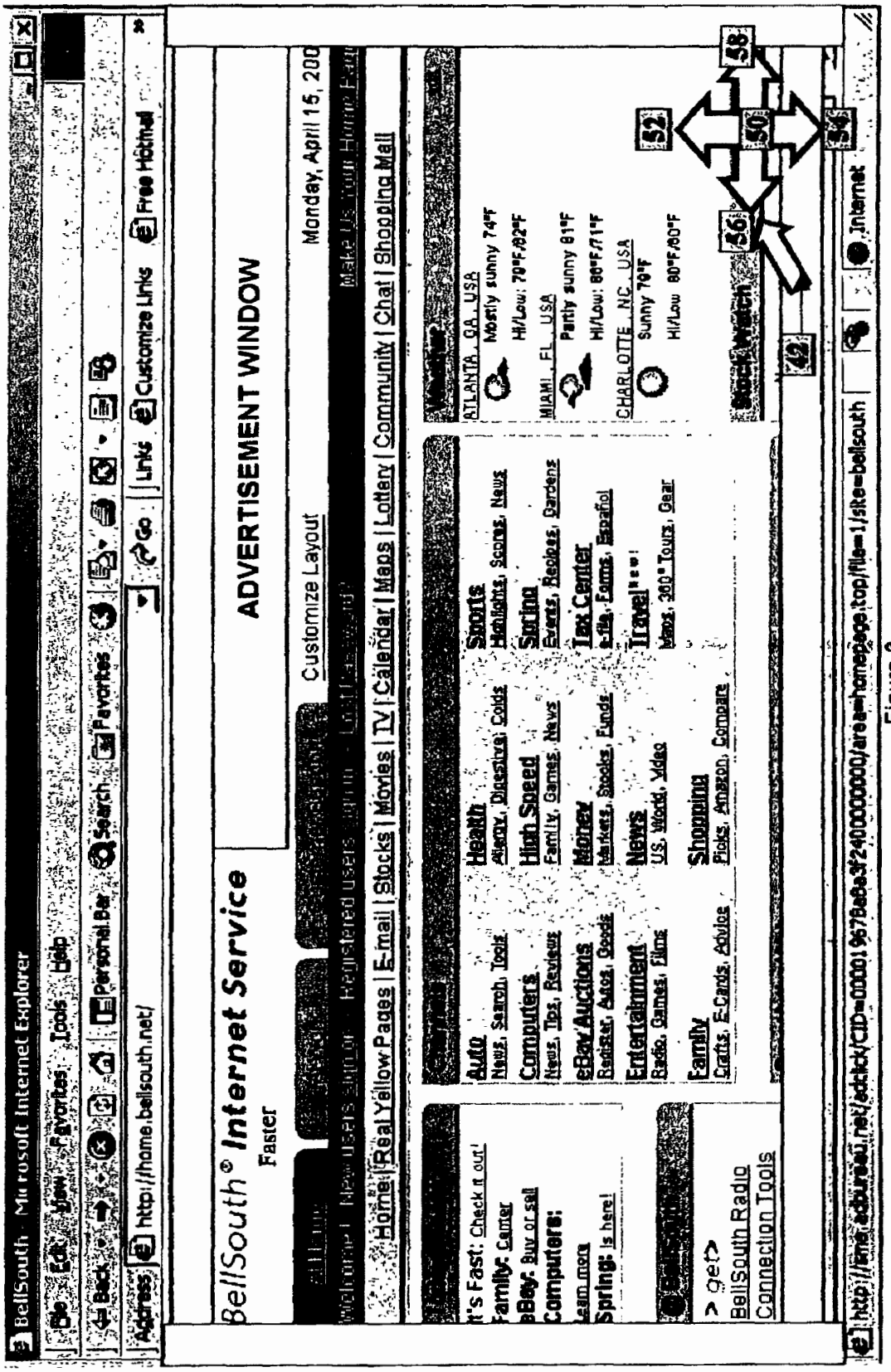

BellSouth Microsoft Internet Explorer
BellSouth® Internet Service
Faster
ADVERTISEMENT WINDOW
Customize Layout
Monday, April 15, 200
Home | Real Yellow Pages | E-mail | Stocks | Movies | TV | Calendar | Maps | Lottery | Community | Chat | Shopping Mall
Auto
Health
Sports
Computers
High Speed
Spring
eBay Auctions
Money
Tax Center
Entertainment
News
Travel
Family
Shopping
ATLANTA, GA, USA
Mostly sunny 74°F
Hi/Low: 79°F/62°F
MIAMI, FL, USA
Partly sunny 81°F
Hi/Low: 80°F/71°F
CHARLOTTE, NC, USA
Sunny 79°F
Hi/Low 80°F/60°F
Stock Watch
> get> BellSouth Radio Connection Tools
Internet
52
58
50
56
36
42

Figure 3

CHRISTMAS 2001 - Microsoft Internet Explorer
THE PORTAL TO GOOD LIVING
BonVivre.com | Christmas 2001
Holiday Extreme Gifts
Holiday Delicacies
Holiday Essentials
Holiday Entertaining
Holiday Books
Holiday Music
Holiday Cards
Holiday Apparel
Essentially America
Essentially America
A bi-monthly, full colour magazine dedicated to covering travel and lifestyle for visitors to the USA and Canada. Every issue includes entertaining and informative articles and a chance to win a fabulous North American holiday
Essential Travel Planner to the USA
This unique 66-page publication lists contact details for all USA state tourism offices (including
FOOD and WINE
TOP
Showcase
My Computer

Figure 4A

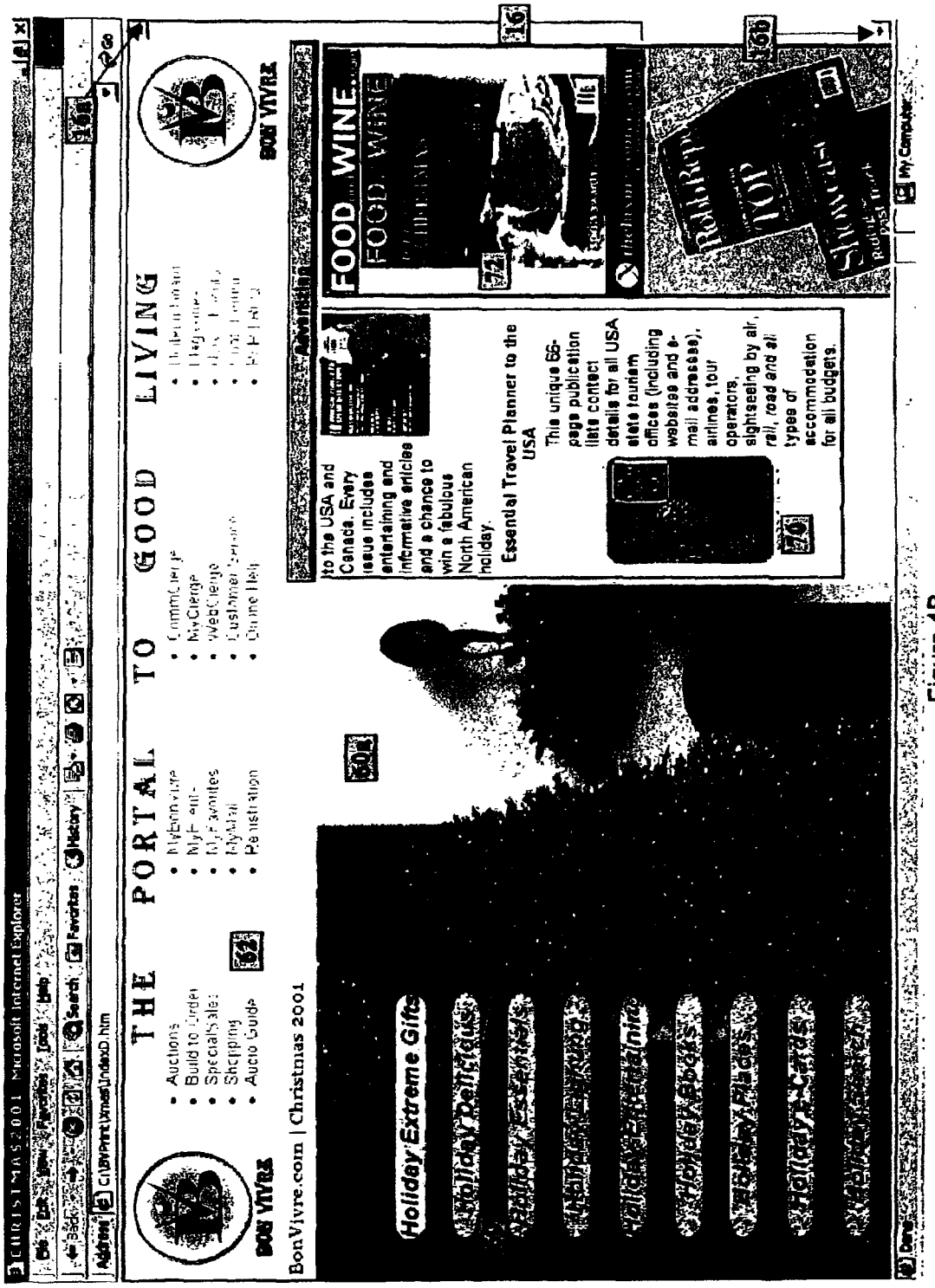

THE PORTAL TO GOOD LIVING
BonVivre.com | Christmas 2001
Holiday Extreme Gift
Holiday Reflections
Holiday Parties
Holiday Cards
Holiday Recipes
Holiday Crafts
Holiday Decorations
FOOD WINE
Essential Travel Planner to the USA
This unique 66-page publication lists contact details for all USA state tourism offices (including website and e-mail addresses), airlines, tour operators, sightseeing by air, rail, road and all types of accommodation for all budgets.

Figure 4B

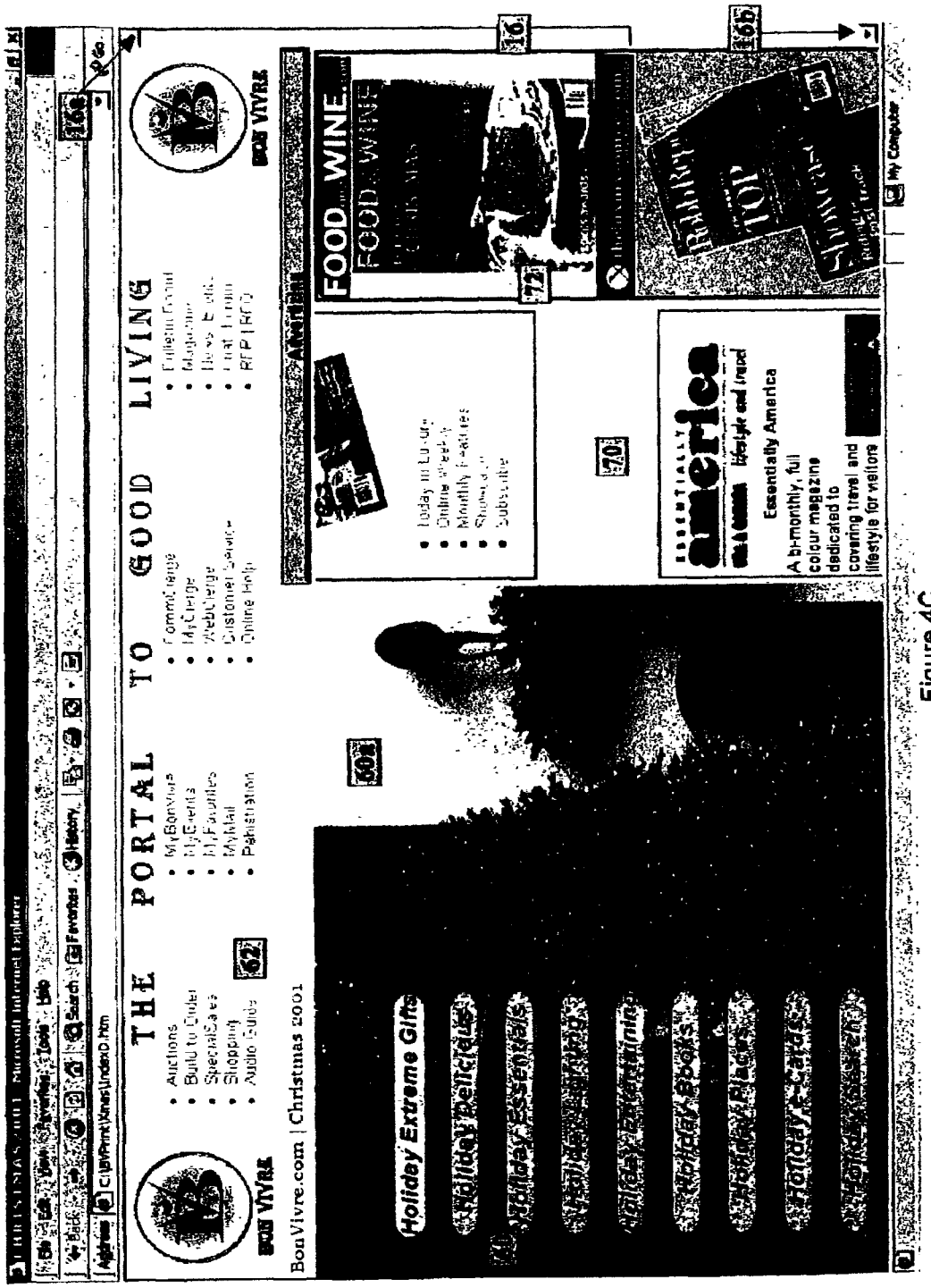

THE PORTAL TO GOOD LIVING
BonVivre.com | Christmas 2001
Holiday Extreme Gifts
FOOD WINE
Essentially America
A bi-monthly, full colour magazine dedicated to covering travel and lifestyle for writers
501
62
70
72
166

Figure 4C

CHRISTMAS2001 - Microsoft Internet Explorer
THE PORTAL TO GOOD LIVING
BonVivre.com | Christmas 2001
Holiday Extreme Gifts
Holiday Delights
Holiday Essentials
Holiday Treasures
Holiday Books
Holiday Blades
Holiday eCards
Holiday Recipes
Essentially America
Essentially America
A bi-monthly, full colour magazine dedicated to covering travel and lifestyle for visitors to the USA and Canada. Every issue includes entertaining and informative articles and a chance to win a fabulous North American holiday
Essential Travel Planner to the USA
This unique 66-page publication lists contact details for all USA state tourism
FOOD & WINE
60
62
70
72
166

Figure 4D

THE PORTAL TO GOOD LIVING
BonVivre.com | Christmas 2001
Holiday Extreme Gifts
Holiday Delicacies
Holiday Essentials
Holiday Entertaining
Holiday Books
Holiday Places
Holiday Cards
Holiday Search
FOOD WINE
Summer!
America
60
62
70
72
16
16b

Figure 4E

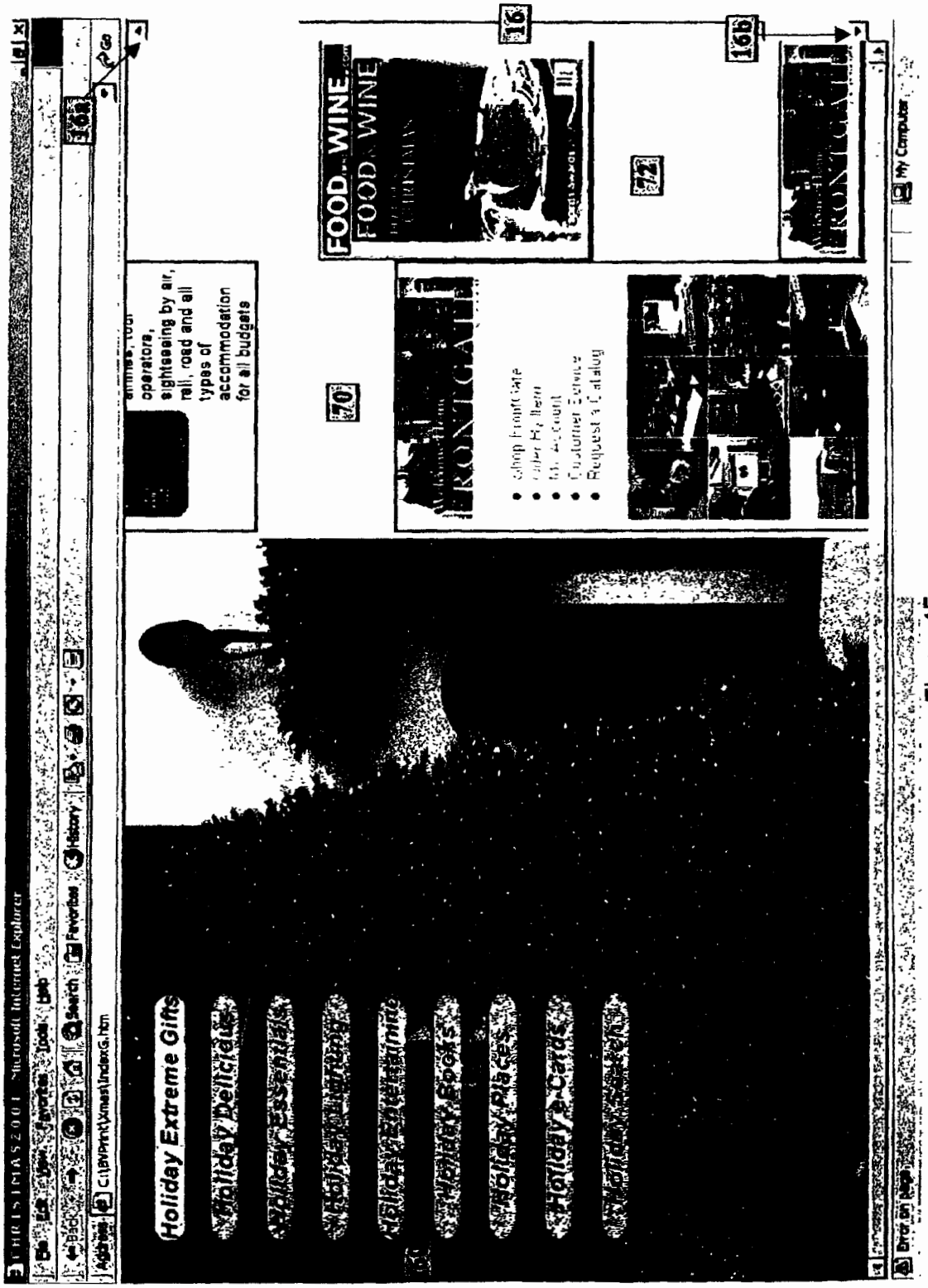

Holiday Extreme Gifts
Holiday Delicacies
Holiday Essentials
Holiday Entertaining
Holiday Books
Holiday Cards
Holiday Trimmings
operators, sightseeing by air, rail, road and all types of accommodation for all budgets
FOOD & WINE
FRONTGATE
Shop FrontGate
Request a Catalog
70
72
166
My Computer

Figure 4F

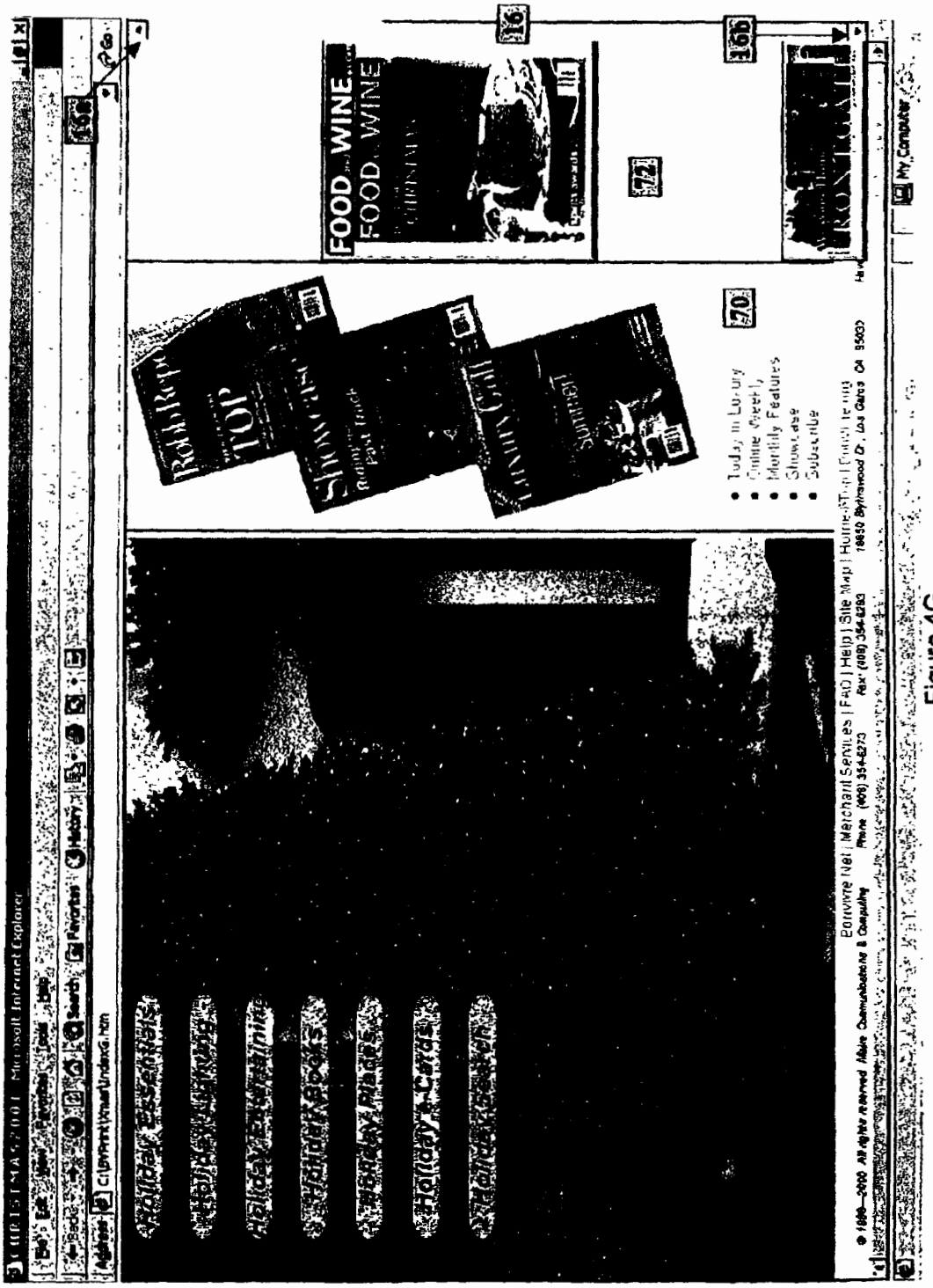


Figure 4G

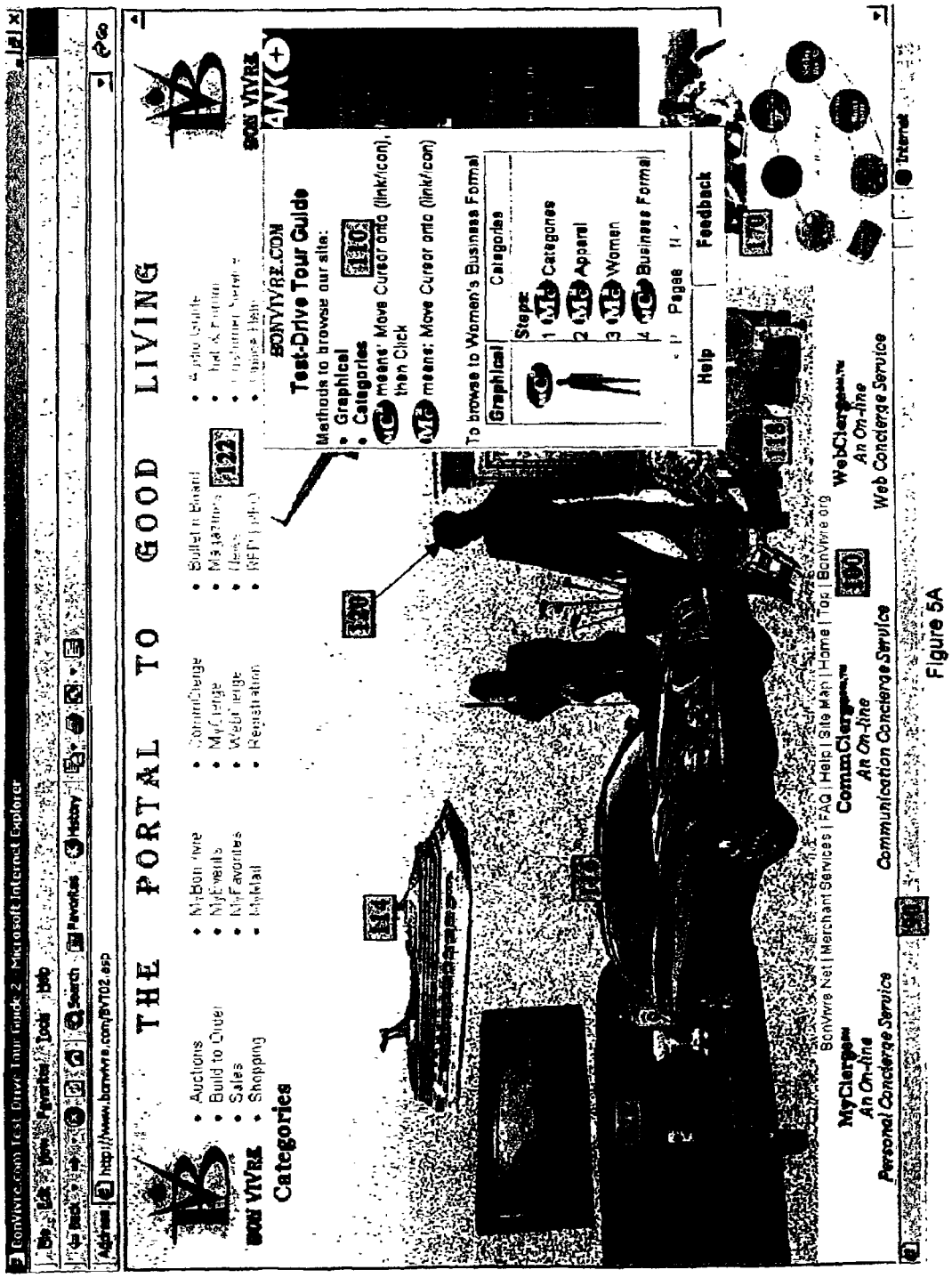

THE PORTAL TO GOOD LIVING
Categories
Auctions
Build to Order
Sales
Shopping
MyBonVivre
MyEvents
MyFavorites
MyMail
CommConcierge
MyConcierge
WebConcierge
Registration
Bullet in Board
Test-Drive Tour Guide
Methods to browse our site:
Graphical
Categories
means: Move Cursor onto (link/icon), then Click
means: Move Cursor onto (link/icon)
To browse to Women's Business Formal
Graphical
Categories
Steps:
1 Categories
2 Apparel
3 Women
4 Business Formal
Help
Feedback
Page
MyConcierge
An On-line
Personal Concierge Service
CommConcierge
An On-line
Communication Concierge Service
WebConcierge
An On-line
Web Concierge Service
BonVivre Net | Merchant Services | FAQ | Help | Site Map | Home | Top | BonVivre.org
110
120
122
130
140
150
160
170
180
190
200

Figure 5A

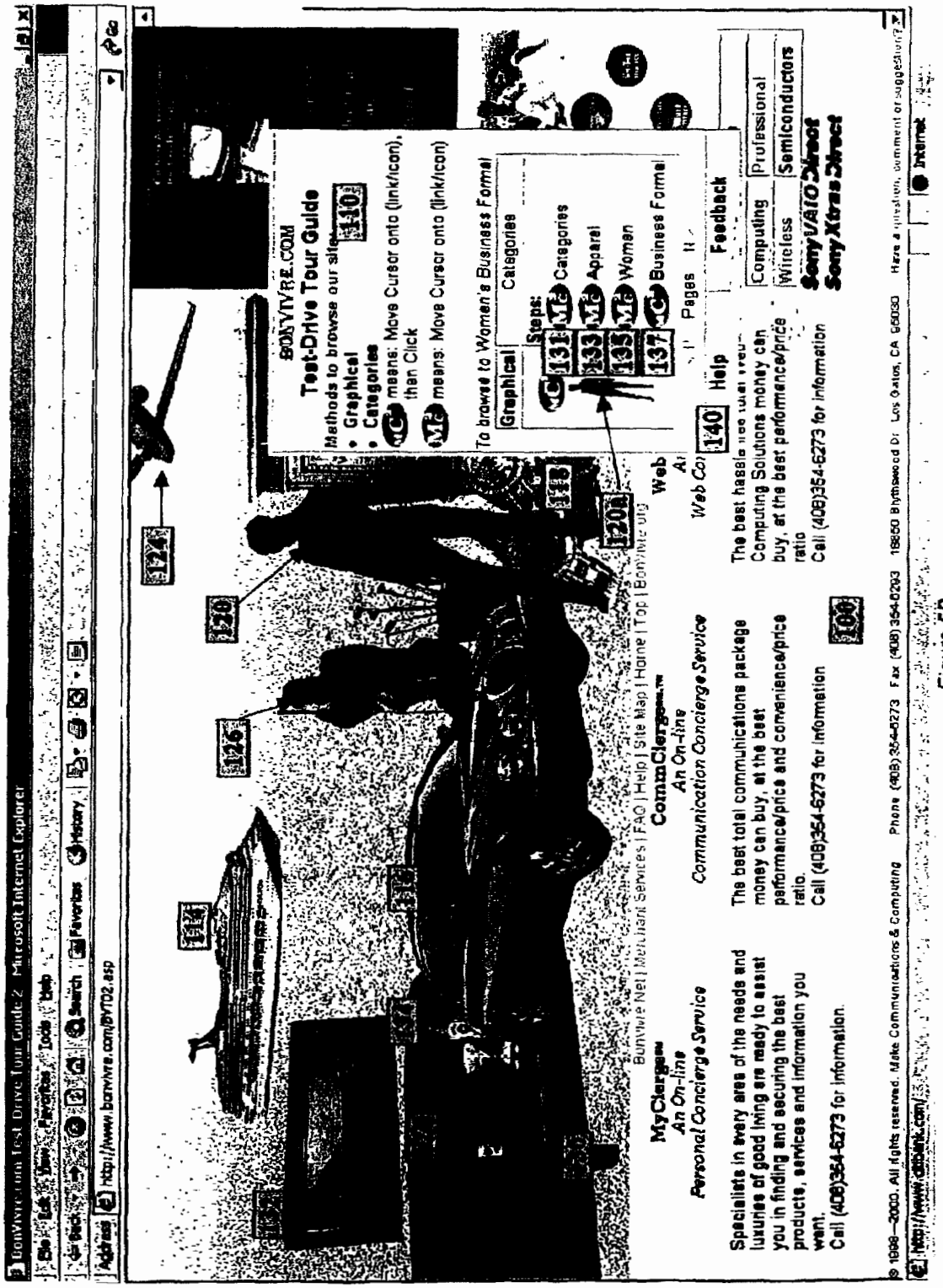

BONVIVRE.COM
Test-Drive Tour Guide
Methods to browse our site:
Graphical
Categories
means: Move Cursor onto (link/icon), then Click
means: Move Cursor onto (link/icon)
To browse to Women's Business Formal
Graphical
Categories
Steps:
Categories
Apparel
Women
Business Formal
Feedback
Help
Computing
Professional
Wireless
Semiconductors
Sony VAIO Direct
Sony Xtras Direct
MyClerge
An On-line
Personal Concierge Service
Specialists in every area of the needs and luxuries of good living are ready to assist you in finding and securing the best products, services and information you want.
Call (408)354-6273 for information.
CommClerge
An On-line
Communication Concierge Service
The best total communications package money can buy, at the best performance/price and convenience/price ratio.
Call (408)354-6273 for information
Computing Solutions money can buy, at the best performance/price ratio
Call (408)354-6273 for information
BonVivre Net | Multiland Services | FAQ | Help | Site Map | Home | Top | Bonvivre.org
© 1998—2000. All rights reserved. Make Communications & Computing
Phone (408) 354-6273 Fax (408) 354-6293 18650 Blythswood Dr. Los Gatos, CA 95030
100
110
112
114
116
118
120
122
124
126
130
132
133
135
137
140
150

Figure 5B

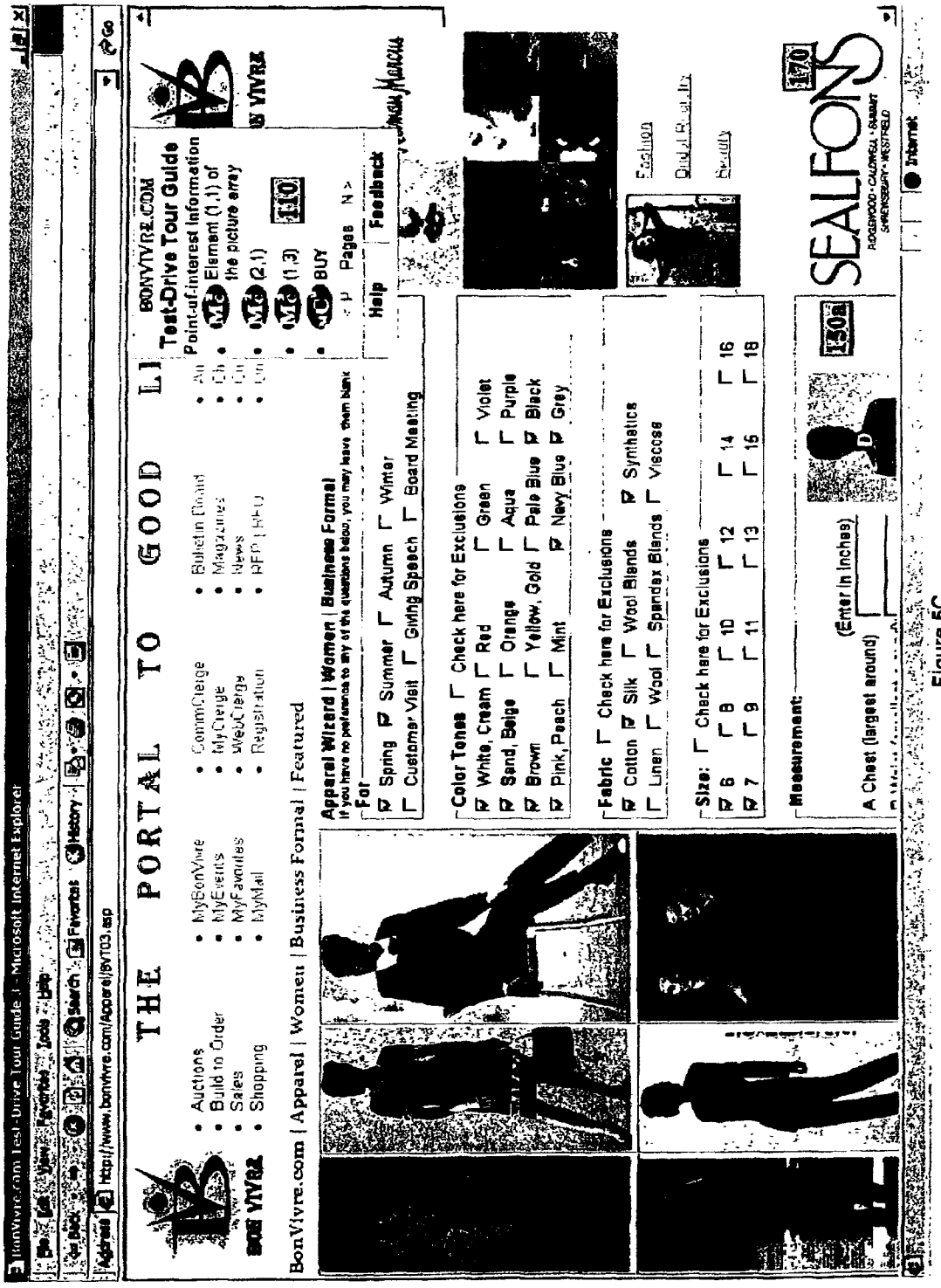

BonVivre.com Test-Drive Tour Guide - Microsoft Internet Explorer
THE PORTAL TO GOOD LI
BONVIVRE.COM
Test-Drive Tour Guide
Point-of-Interest Information
Element (1,1) of the picture array
(2,1)
(1,3)
BUY
Help
Feedback
Auctions
Build to Order
Sales
Shopping
MyBonVivre
MyEvents
MyFavorites
MyMail
CommCierge
MyCierge
WebCierge
Registration
Bulletin Board
Magazines
News
BonVivre.com | Apparel | Women | Business Formal | Featured
Apparel Wizard | Women | Business Formal
If you have no preference to any of the questions below, you may leave them blank
For
Spring
Summer
Autumn
Winter
Customer Visit
Giving Speech
Board Meeting
Color Tones
Check here for Exclusions
White, Cream
Red
Green
Violet
Sand, Beige
Orange
Aqua
Purple
Brown
Yellow, Gold
Pale Blue
Black
Pink, Peach
Mint
Navy Blue
Grey
Fabric
Check here for Exclusions
Cotton
Silk
Wool Blends
Synthetics
Linen
Wool
Spandex Blends
Viscose
Size:
Check here for Exclusions
6
8
10
12
14
16
7
9
11
13
15
18
Measurement:
(Enter in inches)
A Chest (largest around)
130
170
SEALFONS
Fashion
Beauty
Internet

Figure 5C

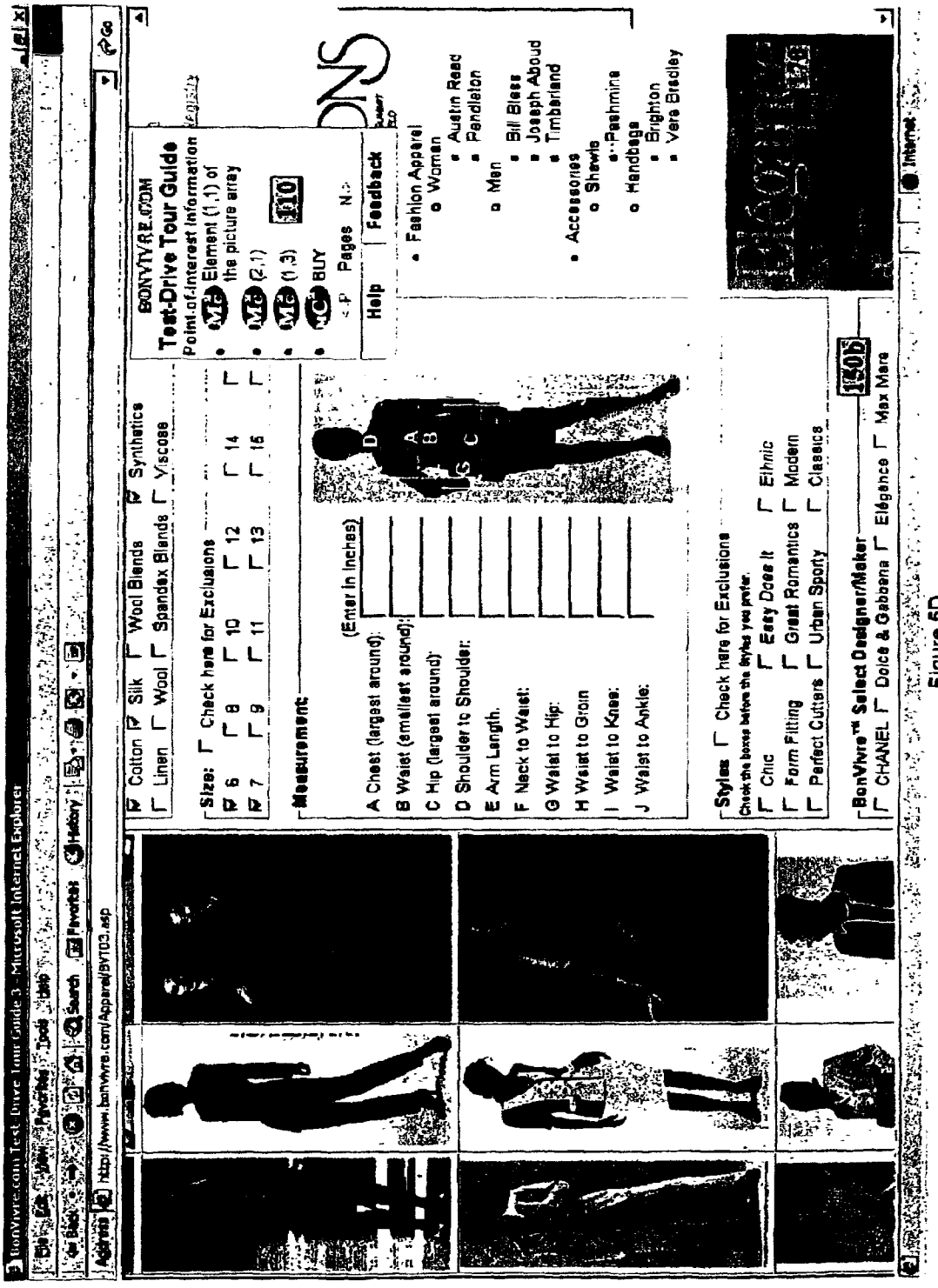

BonVivre.com Test-Drive Tour Guide 3 - Microsoft Internet Explorer
BONVIVRE.COM
Test-Drive Tour Guide
Point-of-interest information
Element (1,1) of the picture array
(2,1)
(1,3)
BUY
Help
Feedback
Fashion Apparel
Women
Austin Reed
Pendleton
Men
Bill Blass
Joseph Aboud
Timberland
Accessories
Shawls
Pashmina
Handbags
Brighton
Vera Bradley
Size:
Measurement:
(Enter in inches)
A Chest (largest around):
B Waist (smallest around):
C Hip (largest around)
D Shoulder to Shoulder:
E Arm Length.
F Neck to Waist:
G Waist to Hip:
H Waist to Groin
I Waist to Knee:
J Waist to Ankle:
Styles
Check the boxes before the Styles you prefer.
Chic
Easy Does It
Ethnic
Farm Fitting
Great Romantics
Modern
Perfect Cutters
Urban Sporty
Classics
BonVivre™ Select Designer/Maker
CHANEL
Dolce & Gabbana
Elegance
Max Mara
Internet

Figure 5D

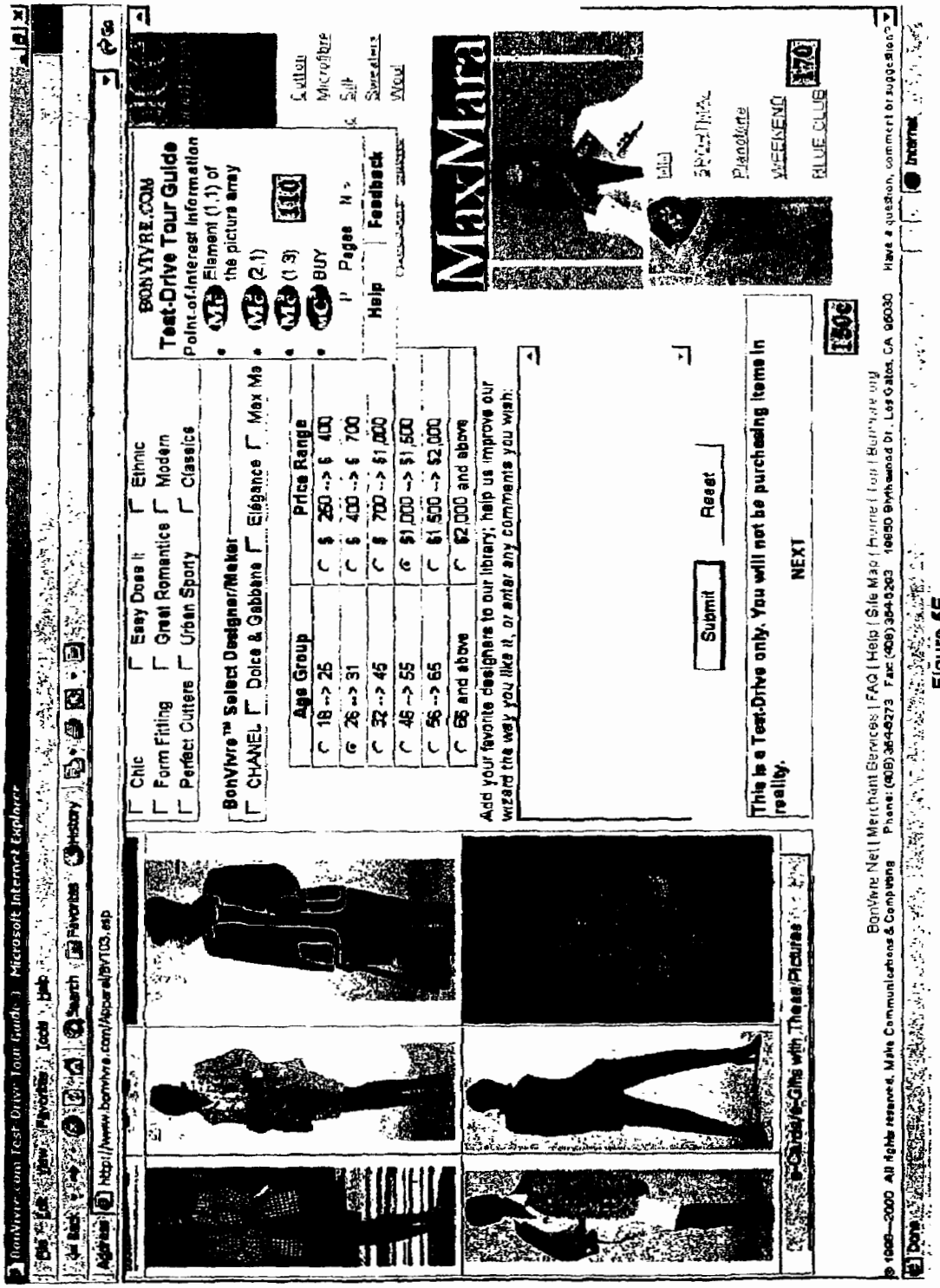

BonVivre.com Test Drive Tour Guide - Microsoft Internet Explorer
Address http://www.bonvivre.com/Apparel/bv103.asp
Chic
Easy Does It
Ethnic
Form Fitting
Great Romantics
Modern
Perfect Cutters
Urban Sporty
Classics
BonVivre™ Select Designer/Maker
CHANEL
Dolce & Gabbana
Elégance
Max Ma
Age Group
18 --> 25
26 --> 31
32 --> 45
46 --> 55
56 --> 65
65 and above
Price Range
$ 250 --> $ 400
$ 400 --> $ 700
$ 700 --> $1,000
$1,000 --> $1,500
$1,500 --> $2,000
$2,000 and above
Add your favorite designers to our library, help us improve our wizard the way you like it, or enter any comments you wish:
Submit
Reset
This is a Test-Drive only. You will not be purchasing items in reality.
NEXT
BONVIVRE.COM
Test-Drive Tour Guide
Point-of-Interest Information
Element (1,1) of the picture array
(2,1)
(1,3)
BUY
Pages
Help
Feedback
Cotton
Microfibre
Silk
Spandex
Wool
MaxMara
Plandorte
WEEKEND
BLUE CLUB
170
150
BonVivre Net | Merchant Services | FAQ | Help | Site Map | Journal | Login | BonVivre.org
Phone: (408) 364-6273 Fax: (408) 364-6263 19650 Blythwood Dr. Los Gatos, CA 95030
Have a question, comment or suggestion?
Done
Internet

Figure 5E

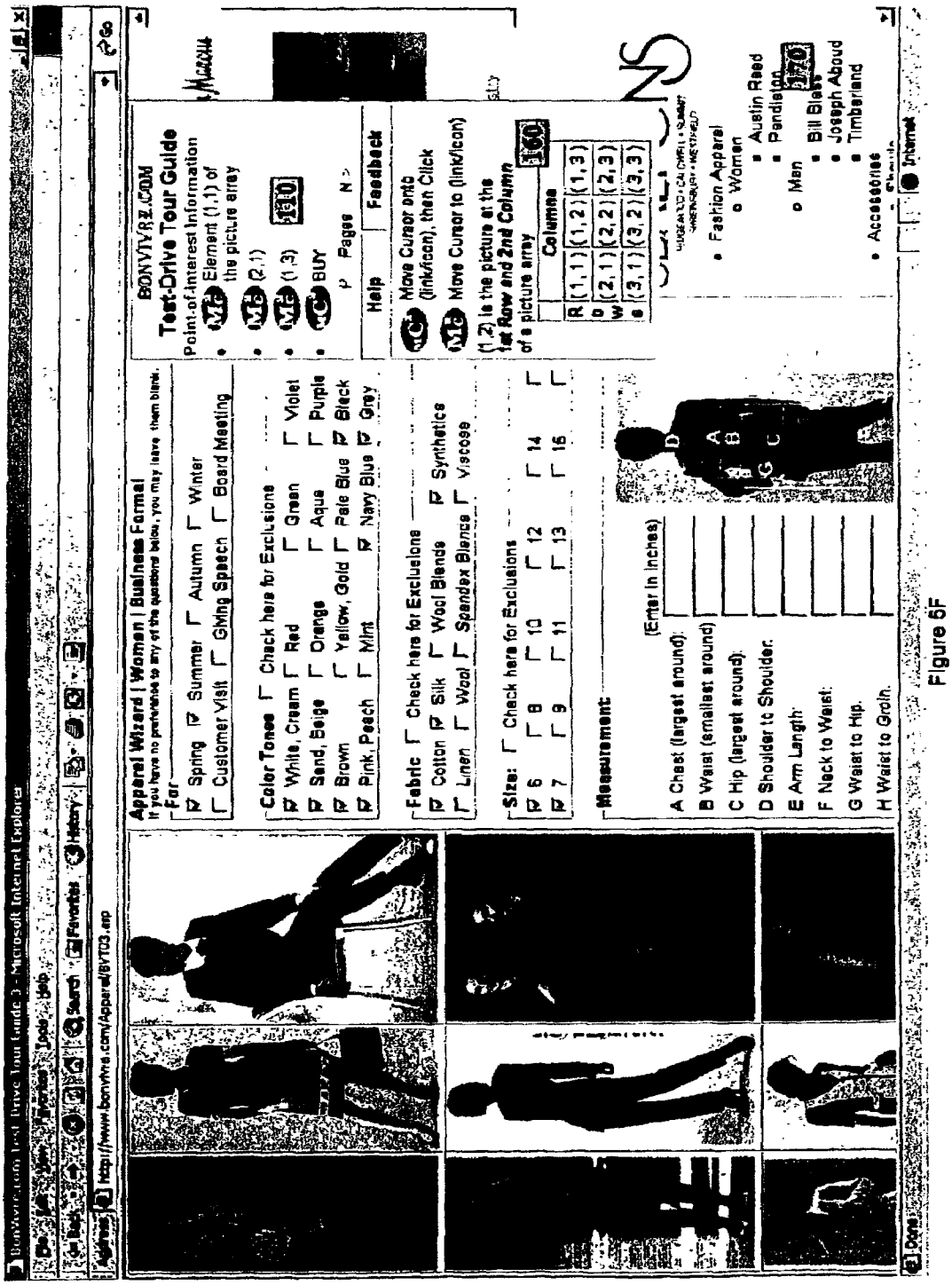

Apparel Wizard | Women | Business Formal
BONVIVRE.COM
Test-Drive Tour Guide
Point-of-Interest Information
Element (1,1) of the picture array
(2,1)
(1,3)
BUY
Help
Feedback
Move Cursor onto (link/icon), then Click
Move Cursor to (link/icon)
(1,2) is the picture at the 1st Row and 2nd Column of a picture array
Columns
Color Tones
Fabric
Size:
Measurement:
(Enter in inches)
A Chest (largest around):
B Waist (smallest around)
C Hip (largest around):
D Shoulder to Shoulder:
E Arm Length:
F Neck to Waist:
G Waist to Hip:
H Waist to Groin:
Fashion Apparel
Women
Austin Reed
Pandiston
Man
Bill Blass
Joseph Aboud
Timberland
Accessories

Figure 6F

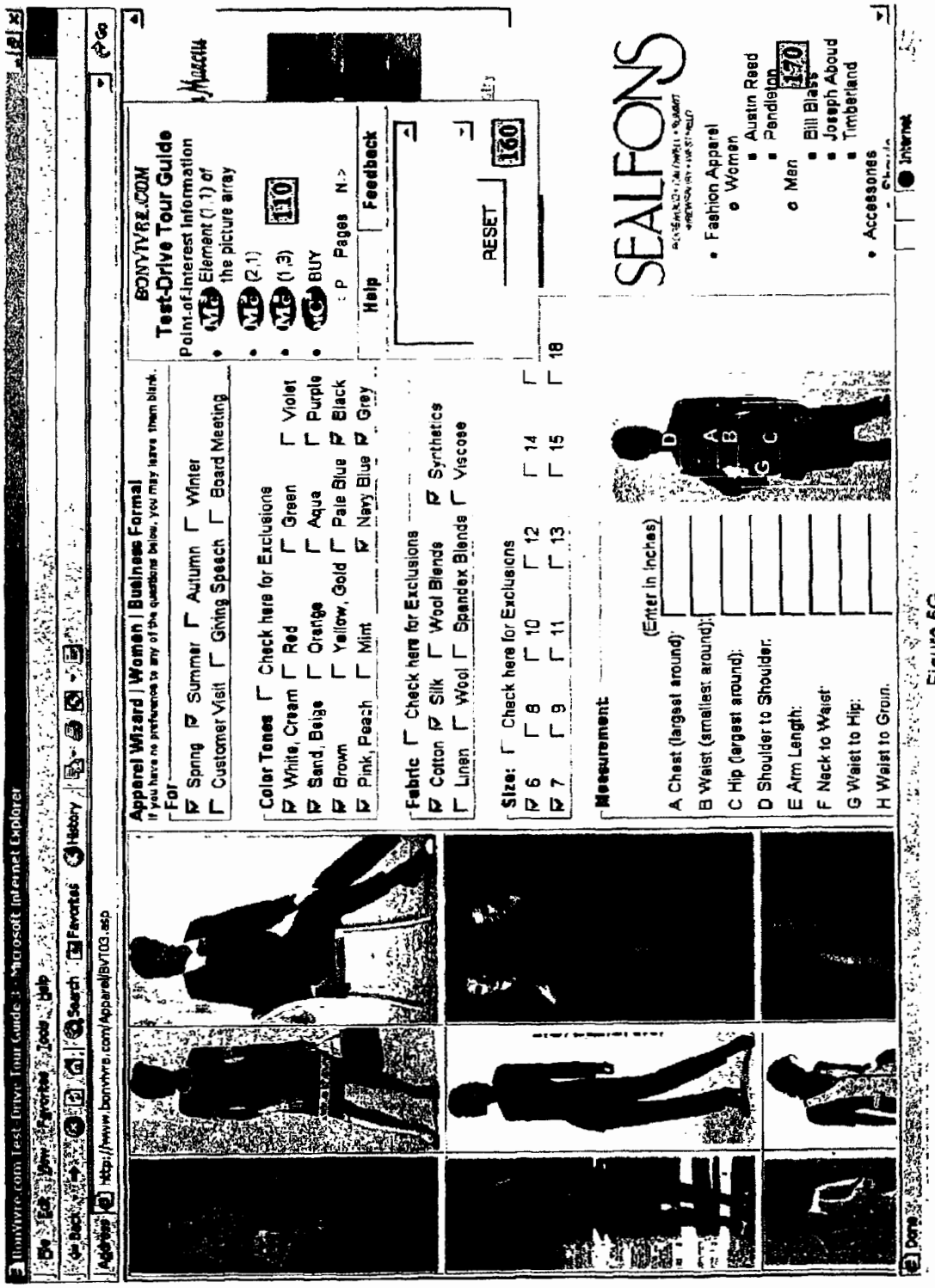

BonyVrz.com Test-Drive Tour Guide - Microsoft Internet Explorer
Apparel Wizard | Women | Business Formal
BONYVRZ.COM
Test-Drive Tour Guide
Point-of-Interest Information
Element (1,1) of the picture array
(2,1)
(1,3)
BUY
Help
Feedback
RESET
Color Tones
Fabric
Size:
Measurement
(Enter in inches)
A Chest (largest around):
B Waist (smallest around):
C Hip (largest around):
D Shoulder to Shoulder:
E Arm Length:
F Neck to Waist:
G Waist to Hip:
H Waist to Groin.
SEALFONS
Fashion Apparel
Women
Austin Reed
Pendleton
Men
Bill Blass
Joseph Aboud
Timberland
Accessories

Figure 5G

AUTOMATED SCROLLING OF BROWSER CONTENT AND AUTOMATED ACTIVATION OF BROWSER LINKS

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims priority from the U.S. Provisional Patent Application Ser. No. 60/262,998 filed on Jan. 20, 2001.

FIELD OF THE INVENTION

This invention relates to automatically scrolling parts of, or the entire content information displayed in a browser page. The invention also relates to partitioned display windows within browsers, and more particularly to display windows that include a plurality of structures that can effectuate scrolling through the content or pages of a browser wherein such content or pages extend beyond the limits of a display window.

The invention also relates to preprogramming automated activation of links contained in browser pages, and automated scrolled presentation of the linked information.

BACKGROUND OF THE INVENTION

The two major classes of electronic media formats that present information to viewer of the information are: (1) the television/video format, and (2) the browser/web format. The television/video format actively presents/pushes continually changing information to passive viewers. The browser/web/computer format is passive, requiring a viewer to "pull" information from the storage devices of that media by entering input requests/commands through an input device. In other words, the viewer is required to actively navigate the browser/web/computer format to receive information.

While the television/video format is convenient, requiring no viewer effort, it lacks interactivity. The browser/web/computer format, on the other hand, sits still, is static until a viewer makes an input/request through an input device to request or navigate to certain information. As can be seen, the browser/web/computer format allows for one input/request at a time for one piece of particular information, a procedure that is tedious and tiring.

Referring now to FIG. **1**, for browser/web pages **10** wider or longer than display window **12**, conventional browsers **14** include vertical scroll arrows **16***a* and **16***b* in combination with a vertical scroll bar **16** at the right edge of the browser **14** to move the content up-and-down within the display window **12**. Furthermore, horizontal scroll arrows **18***a* and **18***b* in combination with a horizontal scroll bar **18** are provided at the bottom edge of the browser **14** to move the content left-and-right within the display window **12**.

In operation, the user of a computer may scroll through the content by moving the cursor **20** to one of the scroll bars **16** or **18**, pressing down the left key of a mouse and dragging the scroll bar, up, down, left or right, via the mouse. When using the scroll bars **16** or **18**, the entire content (top to bottom) is scrolled substantially within the designated dragging area of the display window. Hence, when dragging the scroll bar **16** or **18**, a user can gradually, or quickly at the speed of the fingers' dragging motion permits, move to the end of the content by dragging the scroll bar **16** or **18** to a desired point, or to the end of such designated dragging area.

Alternately, the user could scroll in incremental steps or distances up, down, left or right within the content by repeatedly click the left key of the mouse on any one of the scroll arrows **16***a*, **16***b*, **18***a* and **18***b*. As can be appreciated, these approaches are tedious and finger tiring. Moreover, this approach is even more tiresome when using a mouse-pad to operate the scroll arrows **16***a*, **16***b*, **18***a* and **18***b* and scroll bars **16** and **18**.

In order to access and view additional information linked to a particular browser/web/computer-display page through the "links" contained in the page, the viewer must move the cursor to a particular link (for example, by holding down the left button of a computer "mouse" input device and sliding the "mouse" on a "mouse pad"), and "click" (the mouse left button) or push a button of an input device to request that particular information to be displayed on the display screen. Such operation must be performed one-link at a time, while requiring the viewer to know exactly which "link" to "click" for what information, or to explore, experiment, and guess.

SUMMARY OF THE INVENTION

The present invention contemplates a method of displaying and navigating through repositories of information via a browser by automatically scrolling the content/pages of an information media without requiring user/viewer input. Thus, the repository of information is actively "pushed" to the user, while also allow user to interact with the information and the media. The method automates sequences of blinking links and activates links that contain essential and/or important information to particular sets of viewers/users; and automatically and sequentially presents/pushes such information to particular sets of viewers/users. The same technique can be used to "partition" a TV/video screen and make the TV/video screen "interactive." For example, a model is wearing a particularly stunning dress, you can click on the female figure, and the information, and the purchasing link appears on a separate sub-window. Similarly, if you like the "car" James Bond is driving, or the suit he is wearing, you can do the same.

The present invention also contemplates at least one sub-window inside a browser's main-window that can be independently and automatically or manually scrolled to display content of that sub-window extending beyond the viewing field of that sub-window. Or, the sub-window can remain floating in-place on the computer/browser display screen, while the main page(s) of the browserwindow is automatically or manually scrolled to bring into view the page content that extends beyond the limits of the main browser window.

Furthermore, the present invention contemplates a method of controlling the automatic scrolling within a window or sub-window of a browser/web media page.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates a conventional browser in combination with a page presented by the conventional browser.

FIG. **2** illustrates the browser, in accordance with the present invention, in combination with a page, containing the floating boarder structure that facilitates user control of the automated scrolling.

FIG. **3** illustrates an alternate embodiment of the browser, in accordance with the present invention, in combination with a page.

FIGS. **4**A-**4**G illustrate examples of the separately controllable autoscrolling features in between the main page and sub-windows.

FIGS. **5A-5G** illustrate an application of this invention in a Tutorials/Guide environment, where instructions for the user's action is contained in a floating box that remains within viewing field, while the changing content of the Tutorial/Guide is automatically activated and scrolled through the browser window's viewing field.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to FIG. **2**, the present invention can be added as additional tool, or substitutes for the vertical scroll arrows **16***a* and **16***b* in combination with the vertical scroll bar **16** and the horizontal scroll arrows **18***a* and **18***b* in combination with the horizontal scroll bar **18** with a first boarder floating structure **30** on the right edge, a second boarder floating structure **32** on left edge, a third boarder floating structure **34** on the top edge and a fourth boarder floating structure **36** on the bottom edge of the display window **40**.

In the exemplary embodiment, the first, second, third and fourth boarder floating structures **30**, **32**, **34** and **36** are floating lines or boxes or other geometric shapes that have designated ends for designating a predetermine scrolling direction. The floating line or floating box is considered floating since it always stays in essentially the same position as the content moves within the field of view. The first, second, third and fourth boarder floating structures **30**, **32**, **34** and **36** are the user's control vehicle or mechanism for activating and controlling the automatic scrolling function.

In operation, when the cursor **42** is moved onto either of the top end T1, T2 of one of the first and second boarder floating structures **30** and **32**, the page is automatically scrolled up (or down) to bring within the field of view the content of the page that extends beyond the bottom (or top) edge of the display window **40**. Alternately, when the cursor **42** is moved onto either of the bottom end B1, B2 of one of the first and second boarder floating structures **30** and **32**, the page is automatically scrolled down (or up) to bring within the field of view the content of the page that extends above (or below) the bottom edge of the display window **40**.

In an alternate embodiment, only one of these paired structures **30** and **32** are needed. Having both structures **30** and **32** brings added convenience to the user/viewer to choose for using the structure that is closer to the present cursor position.

Furthermore, placing the cursor **42** on either of the right-side end R1, R2 of one of the third and fourth boarder floating structures **34** and **36**, would automatically scroll the page to the right (or left) to bring within the field of view the content previously beyond the left (or right) edge of the display window **40**. Placing the cursor **42** on either of the left-side end L1, L2 of one of the third and fourth boarder floating structures **34** and **36**, would automatically scroll the page to the left (or right) to bring within the field of view the content previously beyond the right (or left) edge of the display window **40**.

Alternately or in-addition, the GO/STOP/PAGE/CONTINUOUS and SLOW DOWN and SPEED UP functions can be implemented with any desired/appropriate symbols or conventions. In the exemplary embodiment, a floating scrolling tool **42** is provided. The floating scrolling tool **49** includes a go button **43**, stop button **44**, page button **45**, slower button **47** and faster button **48**. The floating scrolling tool **49** is a user control tool implemented as an embodiment of this invention. It remains in view while the page content is scrolled through the viewing field.

The operation of the floating scrolling tool **49** will now be described. The go button **43** when clicked begins the automatic scrolling. The stop button **44** when clicked stops the automatic scrolling. The page button **45** when clicked advances the window to display the next full-page that is currently just out of the field of view. The continuous button **46** when clicked resumes the automatic scrolling from the current position. The go button **43** serves the same function, thus button **46** can be eliminated. Since people normally read in one direction, downward; and when there was no content beyond the left and right edges of the field of view, directionality need not be shown. However, if the page requires right and left directionality, directional buttons may be substituted for the single go button **43**. Finally, the slower button **47** decreases the scrolling speed while the faster button **48** increases the scrolling speed.

The automatic scrolling is automatically stopped when the cursor **42** is moved away from the top ends T1, T2, bottom ends B1, B2, left-side ends L1, L2, and right-side ends L1, L2. Moreover, the automatic scrolling is automatically paused at every full-screen or full-window shift. When the scrolling is paused at a full-screen or full-window shift, the automatic scrolling can be resumed in the direction of the previous scrolling by clicking the left key of a mouse while the cursor **42** is still on a respective one of the ends.

Accordingly the automatic scrolling is essentially continuous within a full-screen or full-window shift, unless stopped by moving the cursor **42**. Furthermore, scrolling can be programmed to automatically stops at the end of the content or page, to be resumed by clicking on a respective end for looping or reversing, or clicking on the go button **43** or continue button **46**. It can also be programmed to loop after pausing, until the user clicks on a link to go else where in the information repository, or an automated link-activation sequence brings new pages to the browser

The speed of the scrolling can also be controlled using an input device or mouse. For example, "clicking" the left button of the "mouse" (input device) while the cursor **42** is at an end would increase the speed of the automatic scrolling in the direction designated by the end. Moving the cursor **42** away from the top, bottom, left or right ends along and on a respective structure **30**, **32**, **34** or **36** would decrease the scrolling speed.

Referring now to FIG. **3**, the user-control vehicle of the automatic scrolling of the present invention can also be implemented with a cluster of arrows **50** at one location. The cluster of arrows **50** includes an up arrow **52**, a down arrow **54**, a left arrow **56** and a right arrow **58**. By placing the cursor **42'** on a respective arrow, the content would shift at the direction of such arrow.

As can be appreciated, the present invention provides for automated scrolling within a display window **40** without the continual strain and motion of the fingers and hand that is required using the conventional "scroll bars" in browsers.

Referring now to FIGS. **4A-4G**, examples of the auto-scrolling features of the present invention with multiple windows are illustrated. FIGS. **4A** and **4B** illustrate a main page **60** having a plurality of navigation links **62** at the top of the main page **60**, to the left of the Christmas tree, and within the graphics. The navigation links **62** provide for navigation such as via HTML links within a website. The main page **60** includes sub-window partitions that form a pair of columns **70** and **72** that cover part of the field of view of the main page **60**. Additionally, the main theme of the content **60***a* is provided to the left of the pair of columns **70** and **72**.

For exemplary purposes, the pair of columns **70** and **72** is depicted as advertisement display sub-windows. Nevertheless, the main page **60** may have any number of sub-window partitions that may be vertically or horizontally oriented, or cut into random areas of the main content. The right column **72** of the advertising display and the main content area **60***a* are stationary while the left column **70** is automatically scrolling.

As can be appreciated, the present invention can be used to automatically scroll partitioned information apart from a browser/web, or TV/Video's main content, such as financial market news and summaries, weather reporting, special features, sports news, movie previews, special stories, or advertisements.

Referring now to FIGS. **4**A and **4**C, the main page **60***a* and the right column **72** are automatically scrolled in synchronization with **60***a*, or can be manually scrolled using the conventional browser scroll bar **16** or the vertical scroll arrows **16***a* and **16***b* along with **60***a*. The left column **70** continues to automatically scroll independently of the main page **60***a* and the right column **72**.

FIGS. **4**D and **4**E illustrates the left column **70** is automatically scrolling independently. The right column **72** is floating independently inview, while—the X-tree may be auto scrolled or manually scrolled independent of column **70** and **72**.

Referring now to FIGS. **4**D and **4**E, the main page **60***a* and the left column **70** may be each independently automatically scrolled at different speeds. For example, the main page **60** is automatically scrolled at a first speed while the left column **70** is scrolled at a second speed higher than the first speed. The right column **72** remains stationary or floating in view.

It should be noted, the scrolling within the main page **60**, **60***a*, left column **70** and/or the right column **72** can be effectuated using the first, second, third and fourth boarder floating structures **30**, **32**, **34** and **36** described in detail above. Additionally or alternatively the floating scrolling tool **49** may be provided. The columns **70** and **72** are for advertisement in the exemplary embodiment, such columns do not generally require scrolling control. However, for sub-windows that display weather reports, stock quotes, feature stories, etc., the floating scrolling tool **49** may be incorporated.

The pair of columns (sub-windows) **70** and **72** do not need to be separated in columns from the remainder of the browser main page **60**. They can be cut-ins within the main page **60** as shown in FIG. **2**, or overlap the main page, as shown in FIGS. **5**A, **5**B, **5**C, **5**D, **5**E, **5**F.

Referring now to FIGS. **5**A-**5**F, the present invention is applied to creating a Tutorial/Guide to a new dynamic push/pull, active/interactive website. FIGS. **5**A, **5**B, **5**C, **5**D, **5**E, and **5**F illustrate that instructions for users/viewers are contained in a floating instruction box **110** overlapping the field of view of the browser's main window **90**. The content of the main pages are automatically and continually scrolled through the field of view of the browser window **90**. The present invention uses sequences of preprogrammed, automatic activation of links to automatically retrieve the additional linked information, and scroll, present, and "push" such automatically retrieved information continually to the user/viewer as shown in FIGS. **5**C, **5**D, **5**E. The "link" (IITML, XML, DTML, etc.) that is to be automatically activated would "blink" (highlighted or emphasized in a manner to call attention directly thereto) before activation. All links contained in the scrolled pages, as well as in the floating "instruction box" are functional, ready to receive user/viewer action/input or selection.

FIGS. **5**A, **5**B, **5**C, **5**D, **5**E and **5**F illustrate an application of the presents invention in a Tutorials/Guide environment, where instructions for the user's action relevant to the displayed information/page is contained in a floating instruction box **110** while the content of the Tutorial/Guide (as conveyed by the illustrations and text content) is automatically scrolled through the browser window **100**. Any sequence of links (HTML, XML links, DTML links, or other links that can be clicked to navigate to a different page) are pre-programmed to be automatically invoked or activated to retrieve (navigate to) the linked information, to scroll, present, and "push" to the user, even if the user does nothing. All links contained in the scrolled pages, as well as, in the floating instruction box **110** are functional to receive the user's input or selection.

In the preferred embodiment, links in the pages are preprogrammed to flash and are activated automatically. When activated, the link's resulting information is displayed (navigated to), automatically scrolled and pushed to the viewer. In the exemplary embodiment, the graphical images of the cruise ship **114**, vehicle **116**, watches **118**, a dressed women **120**, etc. are links. Everything displayed can be a link including: the airplane **124**, the man **126**, the wine **128**, the table **130**, the picture **132**, the furniture **134**, even the background is a link to something. All of these links are active and functional while scrolled, and all and any of these links can be pre-programmed into automated activation sequences. Moreover, most text phrases or words are navigational links, such as word phrases **122**.

When a cursor is placed on a link—whether it is an image, a part of an image, or text, there is a small dialog box (NOT SHOWN) that shows up to describe the link. In the exemplary illustrations, the link flashed and automatically activated is the dressed woman **120** in a rather formal but slick business dress in **5**A and **5**B, that results in the appearance/display and scrolling of FIGS. **5**C, **5**D, and **5**E.

Additionally, the floating instruction box **110** includes a graphical icon **120***a* of that same picture of the dressed woman **120**, instructing or alluring the user to move the cursor onto the graphical women icon **120***a* and click. The automated feature of the link navigates the user to the women's business formal section.

The floating instruction box **110** contains instructions regarding what to do, and contains active links **132**, **134**, **136** and **138** to navigate to additional information. The help button **140** provides access to additional instructions. The feedback button allows the user to provide feedback. The "floating" feature of the floating instruction box **110** allows such box to be within view so that it can be accessed anytime as the main pages **100** are scrolled. It can also be "double clicked" out of view, or "double clicked" back into view, or controlled by any desirable control symbol or convention, such as the standard "-" window-minimizing icon in Microsoft applications. As the user interacts with the instructions in the floating instruction box **110**, a new page is displayed (navigated to) and new instructions relevant to such new page appear in the floating instruction box **110**, so that the user does not have to go else where to look for help/guide/instruction material.

All of the educational or help/guide/instructional material has instructions at a certain place on a page, or even previous pages. Therefore, when the user wants to look at it again, the user can scroll or page back to where the instruction was—if it is remembered where it was seen, and lose the place where

you are actually working on, and needing those damned (are you sure you want to use this word here?) instructions that was way back where you don't remember.

The floating instructional box **110** further includes <P Pages N> for moving to previous or next pages when the <P or N> is clicked.

In the exemplary embodiment, if the user clicked on the graphical women icon **120***a*, FIGS. **5**C, **5**D and **5**E may commence. The women icon **120***a* in the floating instructional box **110** is just a replicate of the women **120** in the page **100**—representing women's business clothes. However, if the women **120** was dressed in ball gowns, prom or formal wear, it would be associated with the navigational link associated therewith. The "Steps" in the Categories section of the floating instruction box **110** allows the user to navigate to any sub category desired.

It should be noted the primary difference in FIGS. **5**A and **5**B is that the main page **100** is scrolling.

Referring now to FIGS. **5**C, **5**D and **5**E, these figures represent the pages or part of pages **150***a*, **150***b*, **150***c* for navigating through the women's business apparel. The primary difference in these figures is that the pages are automatically scrolling thus the women's business apparel is "pushed" and presented to the user. The floating instruction box **110'** remains essentially stationary. The user can select various elements in the displayed selection array to see additional information, or to buy something. The illustrations of FIGS. **5**C, **5**D and **5**E illustrates that the website pages actively "push" the content to the viewer. In other words, the website actively navigates for the user and does not sit still waiting for the user's input before any navigation commences.

FIG. **5**F illustrates the floating instruction box **110'** when the help button **140** is clicked. The floating instruction box **110'** includes a drop down dialog box **160** to explain the arrangement of the page.

FIGS. **5**A-**5**F include a sub-window **170** that can be continuously scrolled automatically independently of the main window of the pages **100**, **150***a*, **150***b* and **150***c*.

The present invention also provides a mechanism to make the otherwise passive browser/web media active and interactive, and TV/Video media interactive, enabling both media with pushing and pulling functions.

As can be appreciated, the present invention provides a method of automatically displaying and navigating through a media, whether TV/Video or Computer/Browser; and, automatically scrolling the content to push and allure navigation through the media.

The website exemplified in FIGS. **5**A through **5**F has multiple categories wherein each category has multiple sub-categories. The method provides for displaying a floating dynamic instruction box **110**, **110'** overlaid on the page that displays navigational links for alluring the user to further navigate to a category or to a sub-category.

The page **100** is a website home page. The page **100** includes at least one blinking picture or link. The method dynamically changes the floating dynamic instruction box **110**, **110'** in response the at least one blinking picture to entice the user to further navigate.

Accordingly, the method automates sequences of blinking links in a page; and activates the blinking links of the sequences to automatically and sequentially push navigation within the website. The sequences may be programmed based on a user's demographics or profile, or any other suitable criteria.

The pages **100**, **150***a*, **150***b* and **150***c* include a sub-window **170**. The subwindow **170** can be automatically scrolled independently of the main window of pages **100**, **150***a*, **150***b* and **150***c*.

Numerous modifications to and alternative embodiments of the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the best mode of carrying out the invention. Details of the structure may be varied substantially without departing from the spirit of the invention and the exclusive use of all modifications, which come within the scope of the appended claims, is reserved.

What is claimed is:

1. A method of automatically scrolling comprising the steps of:

(a) placing a cursor on a respective end of a floating border structure;

(b) in direct response to step (a), automatically scrolling through content extending beyond a display window into a field of view of the display window in a predetermined direction designated by the end, wherein the step of automatically scrolling continues to be performed without user input;

(c) during the step (b). determining if a full-screen shift of the content has occurred;

(d) in response to the sten (c) automatically Pausing the step (b);

(e) after Lhe step (d), clicking a left key of a mouse; and

(f) in response to the sten (e), resuming the sten (b).

2. The method according to claim **1**, wherein:

the floating border structure has a top end and a bottom end; and

the step (b) includes:

when the respective end is the top end, the content is automatically scrolled down to bring the content within the field of view; and,

when the respective end is the bottom end, the content is automatically scrolled up to bring the content within the field of view.

3. The method according to claim **2**, wherein the floating border structure has a right-side end and a left-side end; and

wherein the step (b) further includes the steps of:

when the respective end is the right-side end, the content is automatically scrolled left to bring the content within the field of view; and

when the respective end is the left-side end, the content is automatically scrolled right to bring the content within the field of view.

4. The method according to claim **1**, comprising the steps of:

(g) moving the cursor away from the respective end; and

(h) directly in response to the step (g), automatically stopping the step (b).

5. The method according to claim **1**, wherein the display window is a browser window, and the content is a page.

6. The method according to claim **1**, wherein the floating border structure is a floating line or floating box.

7. The method according to claim **1**, further comprising the steps of activating a user control to perform one of: begin automatic scrolling, stop automatic scrolling, advance scrolling a page, increase scrolling speed and decrease scrolling speed.

8. A computer configured to display a browser display window having a field of view, the browser display window comprising:

a first floating border structure having first and second ends oriented in a vertical plane for effectuating automatic scrolling vertically through content within the field of view in direct response to a cursor being placed on a respective one of the first and second ends, wherein automatically scrolling vertically is effectuated continuously without user input; and

a second floating border structure having third and fourth ends oriented in a horizontal plane for effectuating automatic scrolling horizontally through content within the field of view in direct response to the cursor being placed on a respective one of the third and fourth ends, wherein automatically scrolling horizontally is effectuated continuously without user input;

wherein the content is a page, wherein the page comprises at least one link to additional linked information, and wherein the computer is further configured to automatically retrieve and display the additional linked information when the user does nothing.

9. The computer according to claim **8**, wherein, the first floating border structure has a top end and a bottom end such that when the respective end is the top end, the content is automatically scrolled down to bring the content within the field of view, and when the respective end is the bottom end, the content is automatically scrolled up to bring the content within the field of view.

10. The computer according to claim **9**, wherein:

the second floating border structure has a right-side end and a left-side end;

when the respective end is the right-side end, the content is automatically scrolled left to bring the content within the field of view; and

when the respective end is the left-side end, the content is automatically scrolled right to bring the content within the field of view.

11. The computer according to claim **8**, wherein each floating border structure of the first and second floating border structures is a floating line.

12. The computer according to claim **8**, wherein each floating border structure of the first and second floating border structures is a floating box.

13. The computer according to claim **8**, wherein the automatic scrolling is limited to a full-screen shift.

14. The computer according to claim **8**, wherein the automatic scrolling is automatically stopped when the cursor is moved away from the first floating border structure or the second floating border structure.

15. The computer according to claim **8**, wherein the browser display window is a main display window, the computer being further configured to display a second display window having a second field of view within the main display window, the second display window comprising:

a first floating sub-border structure having first and second ends of the first floating sub-border structure oriented in a vertical plane for effectuating automatic scrolling vertically through content within the second field of view in direct response to the cursor being placed on a respective one of the first and second ends of the first floating sub-border structure; and

a second floating sub-border structure having third and fourth ends of the second floating sub-border structure oriented in a horizontal plane for effectuating automatic scrolling horizontally through content within the second field of view in direct response to the cursor being placed on a respective one of the third and fourth ends of the second floating sub-border structure.

16. A computer configured to display a browser display window having a field of view, the browser display window comprising:

a first floating border structure having first and second ends oriented in a vertical plane for effectuating automatic scrolling vertically through content within the field of view in direct response to a cursor being placed on a respective one of the first and second ends, wherein automatically scrolling vertically is effectuated continuously without user input; and

a second floating border structure having third and fourth ends oriented in a horizontal plane for effectuating automatic scrolling horizontally through content within the field of view in direct response to the cursor being placed on a respective one of the third and fourth ends, wherein automatically scrolling horizontally is effectuated continuously without user input;

wherein the browser display window further comprises a plurality of autoscrolling controls, the plurality of autoscrolling controls including:

a go button for beginning automatic scrolling and resuming automatic scrolling from current position when the go button is clicked;

a stop button for stopping automatic scrolling when the stop button is clicked;

a page button for advancing the window to display next full-page that is out of the field of view when the page button is clicked;

a slow down button for decreasing automatic scrolling speed when the slow down button is clicked; and,

a speedup button for increasing automatic scrolling speed when the speedup button is clicked.

17. A method of displaying and navigating through a website wherein the website has multiple categories wherein each category has multiple sub-categories, comprising the steps of:

displaying on a display of a computer a page of the website;

during the displaying step, automatically scrolling the page while the user of the computer does nothing;

displaying a floating dynamic instruction box overlaid on the page that displays navigational links for alluring the user to further navigate to a category or to a sub-category, the floating dynamic instruction box remaining stationary on the display.

18. The method according to claim **17**, wherein the page is a website home page.

19. The method according to claim **17**, wherein the page includes at least one blinking picture or link; and

further comprising the step of:

dynamically changing the floating dynamic instruction box in response to the at least one blinking picture to entice the user to further navigate.

20. The method according to claim **17**, wherein the page includes at least two independent windows.

21. The method according to claim **20**, further comprising the step of automatically scrolling independently the at least two independent windows.

22. The method according to claim **20**, further comprising the steps of:

automatically scrolling a first one of the at least two independent windows at a first speed; and,

automatically scrolling a second one of the at least two independent windows at a second speed different from the first speed.

23. The method according to claim 20, further comprising the steps of:

manually scrolling a first one of the at least two independent windows; and,

continuously, automatically scrolling a second one of the at least two independent windows.

24. A method of displaying and navigating through a website comprising the steps of:

displaying on a display of a computer a page of the website;

during the displaying step, automatically scrolling the page while the user of the computer does nothing;

automating sequences of blinking links in the page; and,

activating the blinking links of the sequences to automatically and sequentially retrieve additional information linked by the blinking links and present the additional information on the display, thereby pushing navigation within the website.

25. The method according to claim 24, wherein the sequences are based on user demographics or profile.

26. An apparatus for displaying and navigating through a website, the apparatus comprising a computer configured to perform steps comprising:

displaying on a computer display a browser window having a field of view for displaying a webpage of the website within the field of view; and

automatically scrolling the webpage in response to placement of a cursor on a floating structure displayed on the display to push and allure navigation through the website, wherein the step of automatically scrolling continues to be performed when the user of the computer does nothing;

wherein the website has multiple categories wherein each category has multiple sub-categories, the computer being further configured to display a floating dynamic instruction box overlaid on the webpage, the floating dynamic instruction box displaying navigational links for alluring the user to further navigate to a category to a sub-category, the floating dynamic instruction box remaining stationary on the display.

27. The apparatus according to claim 26, wherein the webpage is a website home page.

28. The apparatus according to claim 26, wherein:

the webpage includes at least one blinking picture or link;

the computer is further configured to implement means for dynamically changing the floating dynamic instruction box in response to the at least one blinking picture or link to entice the user to further navigate.

29. The apparatus according to claim 26, further comprising:

means for automating sequences of blinking links in the webpage; and

means for activating the blinking links of the sequences to automatically and sequentially retrieve additional information linked by the blinking links and present the additional information on the display, thereby pushing navigation within the website.

30. The apparatus according to claim 26, wherein the webpage includes at least two independent windows.

31. The apparatus according to claim 30, wherein the at least two independent windows are automatically scrolled independently.

32. The apparatus according to claim 30, wherein:

a first one of the at least two independent windows is automatically scrolled at a first speed; and

a second one of the at least two independent windows is automatically scrolled at a second speed different from the first speed.

33. The apparatus according to claim 30, further comprising:

means for manually scrolling a first one of the at least two independent windows; and

means for continuously, automatically scrolling a second one of the at least two independent windows.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,308,653 B2
APPLICATION NO. : 10/052692
DATED : December 11, 2007
INVENTOR(S) : Catherine Lin-Hendel

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8, line 25, cancel "(b)." and replace the cancelled text with --(b),--;

Column 8, line 27, cancel "sten (c) automatically Pausing" and replace the cancelled text with --step (c) automatically pausing--;

Column 8, line 29, cancel "Lhe step" and replace the cancelled text with --the step--;

Column 8, line 30, cancel "sten (e), resuming the sten (b)." and replace the cancelled text with --step (e), resuming the step (b).--;

Column 8, line 50, cancel "claim 1, comprising" and replace the cancelled text with --claim 1, further comprising--;

Column 11, line 38, cancel "navigate to a category to" and replace the cancelled text with --navigate to a category or to--.

Signed and Sealed this

Third Day of June, 2008

JON W. DUDAS
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(12) **United States Patent**
Lin-Hendel

(10) **Patent No.: US 7,712,044 B2**
(45) **Date of Patent: May 4, 2010**

(54) **AUTOMATED SCROLLING OF BROWSER CONTENT AND AUTOMATED ACTIVATION OF BROWSER LINKS**

(76) Inventor: **Catherine Lin-Hendel**, 18850 Blythswood Dr., Los Gatos, CA (US) 95030

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **11/924,582**

(22) Filed: **Oct. 25, 2007**

(65) **Prior Publication Data**

US 2008/0109750 A1 May 8, 2008

Related U.S. Application Data

(63) Continuation of application No. 10/052,692, filed on Jan. 19, 2002, now Pat. No. 7,308,653.

(60) Provisional application No. 60/262,998, filed on Jan. 20, 2001.

(51) **Int. Cl.**
G06F 3/00 (2006.01)

(52) **U.S. Cl.** **715/785**; 715/786; 715/835; 715/856; 715/862

(58) **Field of Classification Search** 715/785, 715/784, 786, 854, 856, 862, 833, 205, 230, 715/835; 709/217
See application file for complete search history.

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5,657,434	A *	8/1997	Yamamoto et al.	345/684
5,689,284	A *	11/1997	Herget	715/856 X
5,726,687	A *	3/1998	Belfiore et al.	715/785
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(Continued)

Primary Examiner—X. L Bautista
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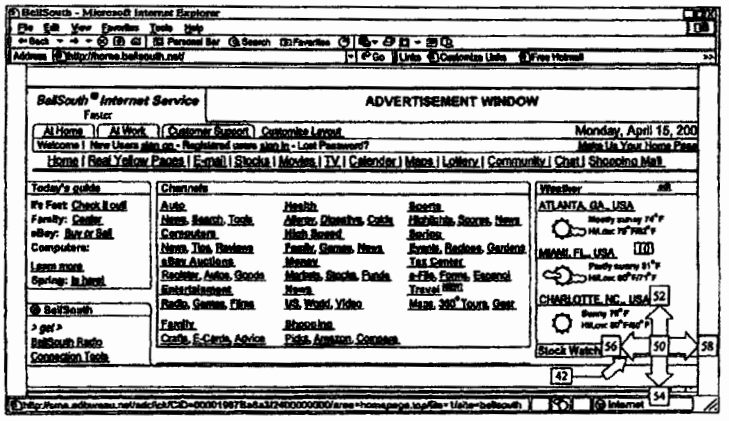
(57) **ABSTRACT**

An automatic scrolling mechanism converts an information repository into media that can actively present and "push" information to the users/viewers while retaining existing "pull" and interactivity functions. Automatic scrolling can be controlled by placing a cursor on control icons, such as boxes, lines, and arrow clusters. While the cursor is on an icon, automatic scrolling brings into view content that extends beyond the field of view. The scrolled content is moved into the field of view of the display window in a predetermined direction designated by the icon. Sub-windows are also designed to be independently and automatically scrolled or floated with respect the main window. Links created in an information repository may be automatically activated to retrieve the linked information, and to automatically present and scroll the information. As the content is automatically scrolled, the repository is pushed and the user is allured to further navigate through the repository.

25 Claims, 17 Drawing Sheets



ciated therewith. The "Steps" in the Categories section of the floating instruction box **110** allows the user to navigate to any sub category desired.

It should be noted the primary difference in FIGS. **5**A and **5**B is that the main page **100** is scrolling.

Referring now to FIGS. **5**C, **5**D and **5**E, these figures represent the pages or part of pages **150***a*, **150***b*, **150***c* for navigating through the women's business apparel. The primary difference in these figures is that the pages are automatically scrolling thus the women's business apparel is "pushed" and presented to the user. The floating instruction box **110'** remains essentially stationary. The user can select various elements in the displayed selection array to see additional information, or to buy something. The illustrations of FIGS. **5**C, **5**D and **5**E illustrates that the website pages actively "push" the content to the viewer. In other words, the website actively navigates for the user and does not sit still waiting for the user's input before any navigation commences.

FIG. **5**F illustrates the floating instruction box **110'** when the help button **140** is clicked. The floating instruction box **110'** includes a drop down dialog box **160** to explain the arrangement of the page.

FIGS. **5**A-**5**F include a sub-window **170** that can be continuously scrolled automatically independently of the main window of the pages **100**, **150***a*, **150***b* and **150***c*.

The present invention also provides a mechanism to make the otherwise passive browser/web media active and interactive, and TV/Video media interactive, enabling both media with pushing and pulling functions.

As can be appreciated, the present invention provides a method of automatically displaying and navigating through a media, whether TV/Video or Computer/Browser; and, automatically scrolling the content to push and allure navigation through the media.

The website exemplified in FIGS. **5**A through **5**F has multiple categories wherein each category has multiple sub-categories. The method provides for displaying a floating dynamic instruction box **110**, **110'** overlaid on the page that displays navigational links for alluring the user to further navigate to a category or to a sub-category.

The page **100** is a website home page. The page **100** includes at least one blinking picture or link. The method dynamically changes the floating dynamic instruction box **110**, **110'** in response the at least one blinking picture to entice the user to further navigate.

Accordingly, the method automates sequences of blinking links in a page; and activates the blinking links of the sequences to automatically and sequentially push navigation within the website. The sequences may be programmed based on a user's demographics or profile, or any other suitable criteria.

The pages **100**, **150***a*, **150***b* and **150***c* include a sub-window **170**. The subwindow **170** can be automatically scrolled independently of the main window of pages **100**, **150***a*, **150***b* and **150***c*.

Numerous modifications to and alternative embodiments of the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the best mode of carrying out the invention. Details of the structure may be varied substantially without departing from the spirit of the invention and the exclusive use of all modifications, which come within the scope of the appended claims. is reserved.

What is claimed is:

1. A method of automatically scrolling displayed content, comprising:

in an electronic device with a display and a user input mechanism:

displaying content in a display window;

displaying a floating icon; and

in response to placement by a user of a cursor on the floating icon, and

without any further user action, automatically scrolling through content extending beyond a display window into a field of view of the display window in a predetermined direction designated by the floating icon, wherein the automatic scrolling continues without user input.

2. The method according to claim **1**, wherein:

the floating icon has a top end and a bottom end; and

the automatic scrolling further includes:

when the cursor is placed on the top end, automatically scrolling the content down to bring the content within the field of view; and

when the cursor is placed on the bottom end, automatically scrolling the content up to bring the content within the field of view.

3. The method according to claim **1**, wherein:

the floating icon has a right-side end and a left side end; and

the automatic scrolling further includes:

when the cursor is placed on the right-side, automatically scrolling the content left to bring the content within the field of view; and

when the cursor is placed on the left-side end, automatically scrolling the content right to bring the content within the field of view.

4. The method according to claim **1**, further comprising:

in response to movement by the user of the cursor away from the floating icon.

5. The method according to claim **1**, further comprising:

during the automatic scrolling, determining that a full-screen shift of the content has occurred; and

in response to the determining automatically pausing the automatic scrolling.

6. The method according to claim **1**, wherein the display window is a browser window, and the content is a page.

7. The method according to claim **1**, further comprising:

activating a user control to perform at least one of: begin automatic scrolling, stop automatic scrolling, advance scrolling a page, increase scrolling speed, and decrease scrolling speed.

8. A method of automatically scrolling displayed content comprising:

in an electronic device with a display and a user input mechanism:

displaying content in a display window;

displaying a plurality of direction indicators; and

in response to placement by a user of a cursor on at least one direction indicator of the plurality of direction indicators, and

without any further user action, automatically scrolling through content extending beyond a display window into a field of view of the display window in a predetermined direction designated by the at least one direction indicator, wherein the automatic scrolling continues without user input.

9. An electronic device with a display having a graphical user interface, comprising:

a browser display window having a field of view;

a user input mechanism; and

a floating icon for effectuating automatic scrolling through content in response to a cursor being placed on the floating icon, wherein the automatic scrolling continues without user input.

10. The electronic device according to claim **9**, wherein:

the floating icon has a top end and a bottom end; and

the automatic scrolling further includes:

when the cursor is placed on the top end, automatically scrolling the content down to bring the content within the field of view; and

when the cursor is placed on the bottom end, automatically scrolling the content up to bring the content within the field of view.

11. The electronic device according to claim **9**, wherein:

the floating icon has a right-side end and a left side end; and

the automatic scrolling further includes:

when the cursor is placed on the right-side end, automatically scrolling the content left to bring the content within the field of view; and

when the cursor is placed on the left-side end, is automatically scrolling the content right to bring the content within the field of view.

12. The electronic device according to claim **9**, further comprising:

during the automatic scrolling, determining that a full-screen shift of the content has occurred; and

in response to the determining automatically stopping the automatic scrolling.

13. The electronic device according to claim **9**, further comprising:

in response to movement by the user of the cursor away from the floating icon, automatically stopping the automatic scrolling.

14. The electronic device according to claim **9**, wherein the browser display window is a main display window, the electronic device being further configured to display a second display window having a second field of view within the main display window, the second display window comprising;

a first floating icon having first and second ends of the first floating icon oriented in a vertical plane for effectuating automatic scrolling vertically through content within the second field of view in direct response to the cursor being placed on a respective one of the first and second ends of the first floating icon; and

a second floating icon having third and fourth ends of the second floating icon oriented in a horizontal plane for effectuating automatic scrolling horizontally through content within the second field of view in direct response to the cursor being placed on a respective one of the third and fourth ends of the second floating icon.

15. A method of displaying and navigating through a website comprising:

displaying on a display of a computer a page of the website; and

during the displaying operation and without any user-initiated actions, automatically scrolling at least part of the page while the user of the computer does nothing.

16. The method according to claim **15**, wherein the page includes at least two independent windows.

17. The method according to claim **16**, further comprising: automatically scrolling at least part of the at least two independent windows, wherein the at least two independent windows are independently scrolled.

18. The method according to claim **16**, further comprising:

automatically scrolling at least part of a first independent window of the at least two independent windows at a first speed; and

automatically scrolling at least part of a second independent window of the at least two independent windows at a second speed, wherein the second speed is different from the first speed.

19. The method according to claim **16**, further comprising:

in response to manual inputs by a user, scrolling at least part of a first independent window of the at least two independent windows; and

automatically scrolling at least part of a second independent window of the at least two independent windows.

20. The method of claim **15**, further comprising:

stopping the automatic scrolling in response to a user input.

21. An apparatus for displaying and navigating through a website, the apparatus comprising a computer configured to perform the following:

displaying in a computer display a browser window having a field of view for displaying a webpage of the website within the field of view; and

during the displaying operation and without any user-initiated actions, automatically scrolling at least part of the webpage while the user of the computer does nothing.

22. The apparatus according to claim **21**, wherein the webpage includes at least two independent windows.

23. The apparatus according to claim **22**, further comprising: automatically scrolling at least part of the at least two independent windows, wherein the at least two independent windows are independently scrolled.

24. The apparatus according to claim **22**, wherein

a first independent window of the at least two independent windows is automatically scrolled at a first speed; and

a second independent window of the at least two independent windows is automatically scrolled at a second speed, wherein the second speed is different from the first speed.

25. The apparatus according to claim **22**, further comprising:

means for receiving manual inputs from a user and scrolling at least part of a first independent window of the at least two independent windows; and

means for automatically scrolling at least part of a second independent window of the at least two independent windows.

* * * * *

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(12) **United States Patent**
Lin-Hendel

(10) **Patent No.: US 8,108,792 B2**
(45) **Date of Patent: *Jan. 31, 2012**

(54) **AUTOMATED SCROLLING OF BROWSER CONTENT AND AUTOMATED ACTIVATION OF BROWSER LINKS**

(76) Inventor: **Catherine Lin-Hendel**, Los Gatos, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **12/753,749**

(22) Filed: **Apr. 2, 2010**

(65) **Prior Publication Data**

US 2010/0281421 A1 Nov. 4, 2010

Related U.S. Application Data

(63) Continuation of application No. 11/924,582, filed on Oct. 25, 2007, now Pat. No. 7,712,044, which is a continuation of application No. 10/052,692, filed on Jan. 19, 2002, now Pat. No. 7,308,653.

(60) Provisional application No. 60/262,998, filed on Jan. 20, 2001.

(51) **Int. Cl.**
G06F 3/00 (2006.01)

(52) **U.S. Cl.** **715/785**; 715/738; 715/733

(58) **Field of Classification Search** 715/785, 715/784, 786, 854, 856, 862, 833, 205, 230; 709/217

See application file for complete search history.

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5,689,284	A	11/1997	Herget	345/145
5,726,687	A	3/1998	Belfiore et al.	345/341
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5,793,365	A	8/1998	Tang et al.	345/329
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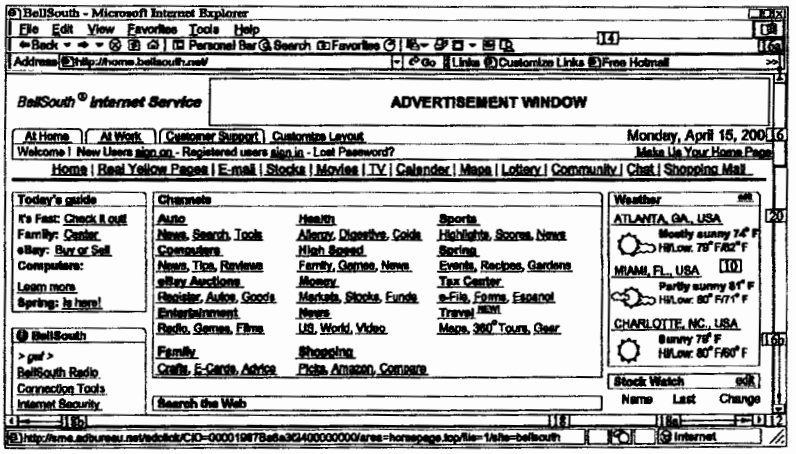
(57) **ABSTRACT**

An automatic scrolling mechanism converts an information repository into media that can actively present and "push" information to the users/viewers while retaining existing "pull" and interactivity functions. Automatic scrolling can be controlled by placing a cursor on control icons, such as boxes, lines, and arrow clusters. While the cursor is on an icon, automatic scrolling brings into view content that extends beyond the field of view. The scrolled content is moved into the field of view of the display window in a predetermined direction designated by the icon. Sub-windows are also designed to be independently and automatically scrolled or floated with respect the main window. Links created in an information repository may be automatically activated to retrieve the linked information, and to automatically present and scroll the information. As the content is automatically scrolled, the repository is pushed and the user is allured to further navigate through the repository.

20 Claims, 17 Drawing Sheets



The floating instructional box **110** further includes <P Pages N> for moving to previous or next pages when the <P or N> is clicked.

In the exemplary embodiment, if the user clicked on the graphical women icon **120***a*, FIGS. **5**C, **5**D and **5**E may commence. The women icon **120***a* in the floating instructional box **110** is just a replicate of the women **120** in the page **100**—representing women's business clothes. However, if the women **120** were dressed in ball gowns, prom or formal wear, it would be associated with the navigational link associated therewith. The "Steps" in the Categories section of the floating instruction box **10** allows the user to navigate to any sub category desired.

It should be noted the primary difference in FIGS. **5**A and **5**B is that the main page **100** is scrolling.

Referring now to FIGS. **5**C, **5**D and **5**E, these figures represent the pages or part of pages **150***a*, **150***b*, **150***c* for navigating through the women's business apparel. The primary difference in these figures is that the pages are automatically scrolling thus the women's business apparel is "pushed" and presented to the user. The floating instruction box **110** remains essentially stationary. The user can select various elements in the displayed selection array to see additional information, or to buy something. The illustrations of FIGS. **5**C, **5**D and **5**E illustrates that the website pages actively "push" the content to the viewer. In other words, the website actively navigates for the user and does not sit still waiting for the user's input before any navigation commences.

FIG. **5**F illustrates the floating instruction box **110'** when the help button **140** is clicked. The floating instruction box **110'** includes a drop down dialog box **160** to explain the arrangement of the page.

FIGS. **5**A-**5**F include a sub-window **170** that can be continuously scrolled automatically independently of the main window of the pages **100**, **150***a*, **150***b* and **150***c*.

The present invention also provides a mechanism to make the otherwise passive browser/web media active and interactive, and TV/Video media interactive, enabling both media with pushing and pulling functions.

As can be appreciated, the present invention provides a method of automatically displaying and navigating through a media, whether TV/Video or Computer/Browser; and, automatically scrolling the content to push and allure navigation through the media.

The website exemplified in FIGS. **5**A through **5**F has multiple categories wherein each category has multiple sub-categories. The method provides for displaying a floating dynamic instruction box **110**, **110'** overlaid on the page that displays navigational links for alluring the user to further navigate to a category or to a sub-category.

The page **100** is a website home page. The page **100** includes at least one blinking picture or link. The method dynamically changes the floating dynamic instruction box **110**, **110'** in response the at least one blinking picture to entice the user to further navigate.

Accordingly, the method automates sequences of blinking links in a page; and activates the blinking links of the sequences to automatically and sequentially push navigation within the website. The sequences may be programmed based on a user's demographics or profile, or any other suitable criteria.

The pages **100**, **150***a*, **150***b* and **150***c* include a sub-window **170**. The sub-window **170** can be automatically scrolled independently of the main window of pages **100**, **150***a*, **150***b* and **150***c*.

Numerous modifications to and alternative embodiments of the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the best mode of carrying out the invention. Details of the structure may be varied substantially without departing from the spirit of the invention and the exclusive use of all modifications, which come within the scope of the appended claims, is reserved.

What is claimed is:

1. A method of displaying and navigating through a website, comprising:

displaying on a display of a computer a page of the website; and during the displaying

operation and without any user-initiated actions, automatically scrolling at least part of the page while the user of the computer does nothing.

2. The method of claim **1**, wherein the page includes at least two independent partitions.

3. The method of claim **2**, wherein at least part of a respective partition of the at least two independent partitions is automatically scrolled.

4. The method of claim **2**, wherein:

at least part of a first independent partition of the at least two independent partitions is automatically scrolled at a first speed; and

at least part of a second independent partition of the at least two independent partitions is automatically scrolled at a second speed.

5. The method of claim **4**, wherein the second speed is different from the first speed.

6. The method of claim **4**, wherein the second speed is the first speed.

7. The method of claim **2**, wherein:

at least part of a first independent partition of the at least two independent partitions is scrolled in response to a user-initiated action; and

at least part of a second independent partition of the at least two independent partitions is automatically scrolled without any user-initiated actions.

8. The method of claim **7**, wherein:

the automatic scrolling of the second independent partition of the at least two independent partitions is stopped in response to a user-initiated action.

9. The method of claim **1**, further comprising:

in response to a user-initiated action, stopping the automatic scrolling of the page.

10. The method of claim **9**, further comprising: in response to a user-initiated action, restarting the automatic scrolling.

11. An apparatus for displaying and navigating through a website, the apparatus comprising a computer configured to perform a method comprising:

displaying on a computer display a browser window having a field of view for displaying a page of the website within the field of view; and

during the displaying operation and without any user-initiated actions, automatically scrolling at least part of the page while the user of the computer does nothing.

12. The apparatus of claim **11**, wherein the page includes at least two independent partitions.

13. The apparatus of claim **12**, wherein at least part of a respective partition of the at least two independent partitions is automatically scrolled.

14. The apparatus of claim **12**, wherein:

at least part of a first independent partition of the at least two independent partitions is automatically scrolled at a first speed; and

at least part of a second independent partition of the at least two independent partitions is automatically scrolled at a second speed.

15. The apparatus of claim **14**, wherein the second speed is different from the first speed.

16. The apparatus of claim **15**, wherein the second speed is the first speed.

17. The apparatus of claim **11**, wherein:

at least part of a first independent partition of the at least two independent partitions is scrolled in response to a user-initiated action; and

at least part of a second independent partition of the at least two independent partitions is automatically scrolled without any user-initiated actions.

18. The apparatus of claim **17**, wherein:

the automatic scrolling of the second independent partition of the at least two independent partitions is stopped in response to a user-initiated action.

19. The apparatus of claim **11**, further comprising:

in response to a user-initiated action, stopping the automatic scrolling of the page.

20. The apparatus of claim **19**, further comprising:

in response to a user-initiated action, restarting the automatic scrolling.

* * * * *

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(12) **United States Patent**
Lin-Hendel

(10) **Patent No.: US 8,850,352 B2**
(45) **Date of Patent: *Sep. 30, 2014**

(54) **AUTOMATED SCROLLING OF BROWSER CONTENT AND AUTOMATED ACTIVATION OF BROWSER LINKS**

(76) Inventor: **Catherine Lin-Hendel**, Los Gatos, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **13/361,826**

(22) Filed: **Jan. 30, 2012**

(65) **Prior Publication Data**

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Related U.S. Application Data

(63) Continuation of application No. 12/753,749, filed on Apr. 2, 2010, now Pat. No. 8,108,792, which is a continuation of application No. 11/924,582, filed on Oct. 25, 2007, now Pat. No. 7,712,044, which is a continuation of application No. 10/052,692, filed on Jan. 19, 2002, now Pat. No. 7,308,653.

(60) Provisional application No. 60/262,998, filed on Jan. 20, 2001.

(51) **Int. Cl.**
G06F 3/0485 (2013.01)

(52) **U.S. Cl.**
CPC ***G06F 3/0485*** (2013.01); *G06F 2216/07* (2013.01)
USPC **715/785**; 715/738; 715/733

(58) **Field of Classification Search**
USPC 715/733, 738, 785, 784, 786, 854, 856, 715/862, 833, 205, 230; 709/217
See application file for complete search history.

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5,621,430	A	4/1997	Bricklin	345/119
5,657,434	A	8/1997	Yamamoto et al.	395/133
5,689,284	A	11/1997	Herget	345/145
5,726,687	A	3/1998	Belfiore et al.	345/341

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(Continued)

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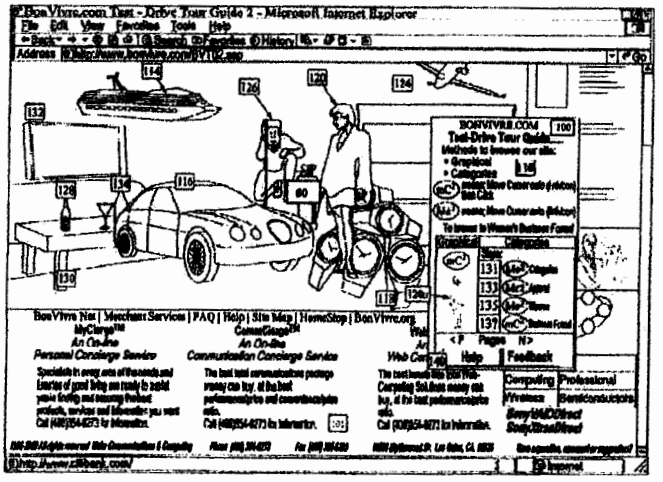
(74) *Attorney, Agent, or Firm* — Barnes & Thornburg LLP; Thomas J. McWilliams; Edward F. Behm, Jr.

(57) **ABSTRACT**

An automatic scrolling mechanism converts an information repository into media that can actively present and "push" information to the users/viewers while retaining existing "pull" and interactivity functions. Automatic scrolling can be controlled by placing a cursor on control icons, such as boxes, lines, and arrow clusters. While the cursor is on an icon, automatic scrolling brings into view content that extends beyond the field of view. The scrolled content is moved into the field of view of the display window in a predetermined direction designated by the icon. Sub-windows are also designed to be independently and automatically scrolled or floated with respect the main window. Links created in an information repository may be automatically activated to retrieve the linked information, and to automatically present and scroll the information. As the content is automatically scrolled, the repository is pushed and the user is allured to further navigate through the repository.

17 Claims, 17 Drawing Sheets



The floating instructional box **110** further includes <P Pages N> for moving to previous or next pages when the <P or N> is clicked.

In the exemplary embodiment, if the user clicked on the graphical women icon **120***a*, FIGS. **5**C, **5**D and **5**E may commence. The women icon **120***a* in the floating instructional box **110** is just a replicate of the women **120** in the page **100**—representing women's business clothes. However, if the women **120** were dressed in ball gowns, prom or formal wear, it would be associated with the navigational link associated therewith. The "Steps" in the Categories section of the floating instruction box **10** allows the user to navigate to any sub category desired.

It should be noted the primary difference in FIGS. **5**A and **5**B is that the main page **100** is scrolling.

Referring now to FIGS. **5**C, **5**D and **5**E, these figures represent the pages or part of pages **150***a*, **150***b*, **150***c* for navigating through the women's business apparel. The primary difference in these figures is that the pages are automatically scrolling thus the women's business apparel is "pushed" and presented to the user. The floating instruction box **110** remains essentially stationary. The user can select various elements in the displayed selection array to see additional information, or to buy something. The illustrations of FIGS. **5**C, **5**D and **5**E illustrates that the website pages actively "push" the content to the viewer. In other words, the website actively navigates for the user and does not sit still waiting for the user's input before any navigation commences.

FIG. **5**F illustrates the floating instruction box **110'** when the help button **140** is clicked. The floating instruction box **110'** includes a drop down dialog box **160** to explain the arrangement of the page.

FIGS. **5**A-**5**F include a sub-window **170** that can be continuously scrolled automatically independently of the main window of the pages **100**, **150***a*, **150***b* and **150***c*.

The present invention also provides a mechanism to make the otherwise passive browser/web media active and interactive, and TV/Video media interactive, enabling both media with pushing and pulling functions.

As can be appreciated, the present invention provides a method of automatically displaying and navigating through a media, whether TV/Video or Computer/Browser; and, automatically scrolling the content to push and allure navigation through the media.

The website exemplified in FIGS. **5**A through **5**F has multiple categories wherein each category has multiple sub-categories. The method provides for displaying a floating dynamic instruction box **110**, **110'** overlaid on the page that displays navigational links for alluring the user to further navigate to a category or to a sub-category.

The page **100** is a website home page. The page **100** includes at least one blinking picture or link. The method dynamically changes the floating dynamic instruction box **110**, **110'** in response the at least one blinking picture to entice the user to further navigate.

Accordingly, the method automates sequences of blinking links in a page; and activates the blinking links of the sequences to automatically and sequentially push navigation within the website. The sequences may be programmed based on a user's demographics or profile, or any other suitable criteria.

The pages **100**, **150***a*, **150***b* and **150***c* include a sub-window **170**. The sub-window **170** can be automatically scrolled independently of the main window of pages **100**, **150***a*, **150***b* and **150***c*.

Numerous modifications to and alternative embodiments of the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the best mode of carrying out the invention. Details of the structure may be varied substantially without departing from the spirit of the invention and the exclusive use of all modifications, which come within the scope of the appended claims, is reserved.

What is claimed is:

1. A method for displaying content, the method being implemented on a computer and comprising:

(a) identifying, in a content that is structured into a plurality of sets of which at least some sets are each programmed to display in a designated partition of a display area, at least a first set that contains more elements than a designated first partition for the first set can accommodate at one time;

(b) while at least a portion of the content is displayed, automatically scrolling the first set in making visible each element of the first set in the designated first partition, so as to automatically make visible one or more elements of the first set that would otherwise not be visible in the designated first partition without the automatic scrolling, wherein the automatic scrolling is not in response to a user request for the automatic scrolling.

2. The method of claim **1**, wherein (b) is performed in response to a user-input to initiate said automatically scrolling.

3. The method of claim **1**, wherein (b) is performed in response to said at least the portion of the content being displayed.

4. The method of claim **1**, wherein the designated first partition is provided as a column.

5. The method of claim **1**, further comprising enabling a user to adjust a speed in which automatically scrolling is performed.

6. The method of claim **1**, wherein the content is a web page.

7. The method of claim **1**, wherein the content includes a second set, and wherein the method further comprises providing at least a portion of the second set for display in a second designated partition.

8. The method of claim **7**, wherein the designated second partition is a column.

9. The method of claim **7**, further comprising enabling a user to manually scroll the second set in order to make visible one or more elements of the second set, while performing (b).

10. The method of claim **7**, further comprising automatically scrolling the second set in making visible each element of the second set in the designated second partition, while performing (b).

11. A system comprising:

a display screen; and

a computer processor configured to:

identify, in a content that is structured into a plurality of sets of which at least some sets are each programmed to display in a designated partition of a display area, at least a first set that contains more elements than a designated first partition for the first set can accommodate at one time;

while at least a portion of the content is displayed on the display screen, automatically scroll the first set in making visible each element of the first set in the designated first partition, so as to automatically make visible one or more elements of the first set that would otherwise not be visible in the designated first partition without the automatic scrolling, wherein the automatic scrolling is not in response to a user request for the automatic scrolling.

12. The system of claim 11, wherein the computer automatically scrolls the first set in response to a user-input to initiate automatic scrolling.

13. The system of claim 11, wherein the computer automatically scrolls the first set in response to at least the portion of the content being displayed on the display screen.

14. The system of claim 11, wherein the designated first partition is provided as a column.

15. The system of claim 11, wherein the computer is configured to enable a user to adjust a speed in which automatically scrolling is performed.

16. The system of claim 11, wherein the computer displays the content and enables automatic scrolling through a browser.

17. The system of claim 11, wherein the display screen is a television.

* * * * *

US009053205B2

(12) **United States Patent**
Lin-Hendel

(10) **Patent No.: US 9,053,205 B2**
(45) **Date of Patent: *Jun. 9, 2015**

(54) **AUTOMATED SCROLLING OF BROWSER CONTENT AND AUTOMATED ACTIVATION OF BROWSER LINKS**

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(72) Inventor: **Catherine G. Lin-Hendel**, Summit, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **14/463,870**

(22) Filed: **Aug. 20, 2014**

(65) **Prior Publication Data**

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Related U.S. Application Data

(63) Continuation of application No. 13/361,826, filed on Jan. 30, 2012, now Pat. No. 8,850,352, which is a continuation of application No. 12/753,749, filed on Apr. 2, 2010, now Pat. No. 8,108,792, application No. 14/463,870, which is a continuation of application No. 11/924,582, filed on Oct. 25, 2007, now Pat. No. 7,712,044, and a continuation of application No. 10/052,692, filed on Jan. 19, 2002, now Pat. No. 7,308,653.

(60) Provisional application No. 60/262,998, filed on Jan. 20, 2001.

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G06F 3/0485 (2013.01)
G06F 17/30 (2006.01)

(52) **U.S. Cl.**
CPC ***G06F 17/30905*** (2013.01); ***G06F 3/0485*** (2013.01); *G06F 2216/07* (2013.01)

(58) **Field of Classification Search**
CPC H04L 29/06; H04L 29/0809; H04L 29/08072; G06F 3/0485; G06F 3/04855; G06F 3/04847; G06F 3/0481; G06F 3/04812; G06F 3/04842; G06F 17/24; G06F 17/241; G06F 2216/07
USPC 715/733, 738, 784, 785, 786, 833, 835, 715/854, 856, 862, 205, 230; 709/217
See application file for complete search history.

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6,940,488	B1 *	9/2005	Siddiqui et al.	345/163
2004/0117831	A1 *	6/2004	Ellis et al.	725/53

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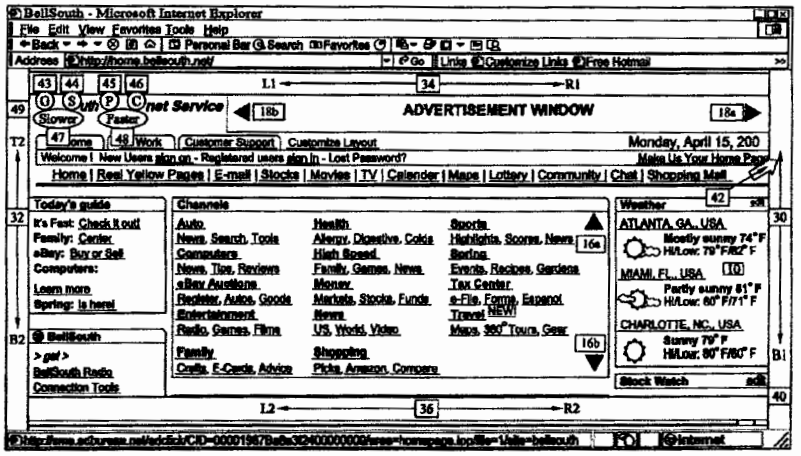
(57) **ABSTRACT**

An automatic scrolling mechanism converts an information repository into media that can actively present and "push" information to the users/viewers while retaining existing "pull" and interactivity functions. Automatic scrolling can be controlled by placing a cursor on control icons, such as boxes, lines, and arrow clusters. While the cursor is on an icon, automatic scrolling brings into view content that extends beyond the field of view. The scrolled content is moved into the field of view of the display window in a predetermined direction designated by the icon. Sub-windows are also designed to be independently and automatically scrolled or floated with respect the main window. Links created in an information repository may be automatically activated to retrieve the linked information, and to automatically present and scroll the information. As the content is automatically scrolled, the repository is pushed and the user is allured to further navigate through the repository.

38 Claims, 17 Drawing Sheets



The floating instructional box **110** further includes <P Pages N> for moving to previous or next pages when the <P or N> is clicked.

In the exemplary embodiment, if the user clicked on the graphical women icon **120***a*, FIGS. SC, SD and SE may commence. The women icon **120***a* in the floating instructional box **110** is just a replicate of the women **120** in the page **100**—representing women's business clothes. However, if the women **120** were dressed in ball gowns, prom or formal wear, it would be associated with the navigational link associated therewith. The "Steps" in the Categories section of the floating instruction box **10** allows the user to navigate to any sub category desired.

It should be noted the primary difference in FIGS. **5**A and **5**B is that the main page **100** is scrolling.

Referring now to FIGS. **5**C, **5**D and **5**E, these figures represent the pages or part of pages **150***a*, **150***b*, **150***c* for navigating through the women's business apparel. The primary difference in these figures is that the pages are automatically scrolling thus the women's business apparel is "pushed" and presented to the user. The floating instruction box **110** remains essentially stationary. The user can select various elements in the displayed selection array to see additional information, or to buy something. The illustrations of FIGS. **5**C, **5**D and **5**E illustrates that the website pages actively "push" the content to the viewer. In other words, the website actively navigates for the user and does not sit still waiting for the user's input before any navigation commences.

FIG. **5**F illustrates the floating instruction box **110'** when the help button **140** is clicked. The floating instruction box **110'** includes a drop down dialog box **160** to explain the arrangement of the page.

FIGS. **5**A-**5**F include a sub-window **170** that can be continuously scrolled automatically independently of the main window of the pages **100**, **150***a*, **150***b* and **150***c*.

The present invention also provides a mechanism to make the otherwise passive browser/web media active and interactive, and TV/Video media interactive, enabling both media with pushing and pulling functions.

As can be appreciated, the present invention provides a method of automatically displaying and navigating through a media, whether TV/Video or Computer/Browser; and, automatically scrolling the content to push and allure navigation through the media.

The website exemplified in FIGS. **5**A through **5**F has multiple categories wherein each category has multiple sub-categories. The method provides for displaying a floating dynamic instruction box **110**, **110'** overlaid on the page that displays navigational links for alluring the user to further navigate to a category or to a sub-category.

The page **100** is a website home page. The page **100** includes at least one blinking picture or link. The method dynamically changes the floating dynamic instruction box **110**, **110'** in response the at least one blinking picture to entice the user to further navigate.

Accordingly, the method automates sequences of blinking links in a page; and activates the blinking links of the sequences to automatically and sequentially push navigation within the website. The sequences may be programmed based on a user's demographics or profile, or any other suitable criteria.

The pages **100**, **150***a*, **150***b* and **150***c* include a sub-window **170**. The sub-window **170** can be automatically scrolled independently of the main window of pages **100**, **150***a*, **150***b* and **150***c*.

Numerous modifications to and alternative embodiments of the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the best mode of carrying out the invention. Details of the structure may be varied substantially without departing from the spirit of the invention and the exclusive use of all modifications, which come within the scope of the appended claims, is reserved.

The invention claimed is:

1. A computer implemented method for displaying and navigating a webpage, comprising:

displaying a webpage, wherein the webpage contains a designated area displaying a first set of content comprising a pictorial digital representation and wherein the first set of content is displayed in a stationary fashion for a period of time; and

automatically scrolling without any user-initiated actions the content within the designated area such that the first set of content is replaced by a second set of content comprising a pictorial digital representation, wherein the second set of content is displayed in a stationary fashion for a period of time.

2. The method of claim **1**, wherein the designated area comprises a window.

3. The method of claim **2**, wherein the window comprises one or more borders.

4. The method of claim **3**, wherein the first and second sets of content are separated by at least one border that is also visible during the automatic scrolling operation.

5. The method of claim **1**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned within the designated area displaying said content.

6. The method of claim **1**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned on an object outside the designated area displaying said content.

7. The method of claim **1**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned on an object inside the designated area displaying said content.

8. The method of claim **6** or **7**, wherein the pausing of the automatic scrolling is in response to the cursor being placed on the object, following by the receipt of a click operation.

9. The method of claim **1**, further comprising, without any user-initiated actions, automatically scrolling the content within the designated area such that the second set of content is replaced by a third set of content comprising a digital representation of at least one object, wherein the third set of content is displayed in a stationary fashion for a period of time.

10. The method of claim **1**, wherein the second and third sets of content are separated by at least one border that is visible during the automatic scrolling operation.

11. The method of claim **1** or **9**, wherein at least one of the first, second and third sets of content displayed in the designated area contains a link to a webpage displaying information regarding the set of content in which the link is located.

12. The method of claim **1** or **9**, wherein the selection of said link leads to a webpage that allows a user to purchase an item.

13. The method of claim **1**, wherein at least one of the pictorial, digital representations is of an item available for commercial sale.

14. A computer implemented method for displaying and navigating a webpage, comprising:

displaying a webpage, wherein the webpage contains a designated area displaying a first set of content compris-

ing a digital representation of at least one object and wherein the first set of content is displayed in a stationary fashion for a period of time and contains a link to a webpage displaying information about the at least one object digitally represented in the first set of content; and

automatically scrolling without any user-initiated actions the content within the designated area such that the first set of content is replaced by a second set of content comprising a digital representation of at least one object, wherein the second set of content is displayed in a stationary fashion for a period of time and contains a link to a webpage displaying information about the at least one object digitally represented in the second set of content.

15. The method of claim **14**, wherein the designated area comprises a window.

16. The method of claim **15**, wherein the window comprises one or more borders.

17. The method of claim **14**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned within the designated area displaying said content.

18. The method of claim **14**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned on an object outside the designated area displaying said content.

19. The method of claim **14**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned on an object inside the designated area displaying said content.

20. The method of claim **18** or **19**, wherein the pausing of the automatic scrolling is in response to the cursor being placed on the object, following by the receipt of a click operation.

21. The method of claim **14**, wherein the first and second sets of content are separated by at least one border that is visible during the automatic scrolling operation.

22. The method of claim **14**, further comprising, without any user-initiated actions, automatically scrolling the content within the designated area such that the second set of content is replaced by a third set of content comprising a digital representation of at least one object, wherein the third set of content is displayed in a stationary fashion for a period of time and contains a link to a webpage displaying information about the at least one object digitally represented in the third set of content.

23. The method of claim **14**, further wherein the displayed first set of content comprises a digital representation of at least one object not displayed elsewhere on the webpage.

24. A computer implemented method for displaying and navigating a webpage, comprising:

displaying a webpage, wherein the webpage contains a designated area displaying a first set of content comprising a digital representation of at least one object not displayed elsewhere on the webpage and wherein the first set of content is displayed in a stationary fashion for a period of time and contains a link to a webpage displaying information about the at least one object digitally represented in the first set of content; and

automatically scrolling without any user-initiated actions the content within the designated area such that the first set of content is replaced by a second set of content comprising a digital representation of at least one object, wherein the second set of content is displayed in a stationary fashion for a period of time and contains a link to a webpage displaying information about the at least one object digitally represented in the second set of content.

25. The method of claim **24**, wherein the designated area comprises a window.

26. The method of claim **25**, wherein the window comprises one or more borders.

27. The method of claim **24**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned within the designated area displaying said content.

28. The method of claim **24**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned on an object outside the designated area displaying said content.

29. The method of claim **24**, further comprising pausing the automatic scrolling of a given set of content in response to a cursor being positioned on an object inside the designated area displaying said content.

30. The method of claim **28** or **29**, wherein the pausing of the automatic scrolling is in response to the cursor being placed on the object, following by the receipt of a click operation.

31. The method of claim **24**, wherein the first and second sets of content are separated by at least one border that is visible during the automatic scrolling operation.

32. The method of claim **24**, further comprising, without any user-initiated actions, automatically scrolling the content within the designated area such that the second set of content is replaced by a third set of content comprising a digital representation of at least one object, wherein the third set of content is displayed in a stationary fashion for a period of time and contains a link to a webpage displaying information about the at least one object digitally represented in the third set of content.

33. The method of claim **22** or **32**, further wherein the displayed third set of content comprises a digital representation of at least one object not displayed elsewhere on the webpage.

34. The method of claim **9**, **22** or **32**, wherein the third set of content is displayed in a stationary fashion for a period of time that is the same as the period of time for which the first and second sets of content are displayed in a stationary fashion.

35. The method of claim **14** or **24**, further wherein the displayed second set of content comprises a digital representation of at least one object not displayed elsewhere on the webpage.

36. The method of claim **14** or **24**, wherein at least one of said objects is an item available for commercial sale.

37. The method of claim **1**, **14** or **24**, wherein the second set of content is displayed in a stationary fashion for a period of time that is the same as the period of time for which the first set of content is displayed in a stationary fashion.

38. The method of claim **1**, **14** or **24**, further comprising, without any user-initiated actions, automatically scrolling the content within the designated area such that the second set of content is replaced by an additional set of content, wherein the automatic scrolling of additional sets of content eventually results in the display of the first set of content.

* * * * *

US009405852B2

(12) **United States Patent**
Lin-Hendel

(10) **Patent No.: US 9,405,852 B2**
(45) **Date of Patent: *Aug. 2, 2016**

(54) **AUTOMATED CHANGING OF CONTENT SET DISPLAYING IN THE DISPLAY SCREEN OF A BROWSER AND AUTOMATED ACTIVATION OF LINKS CONTAINED IN THE DISPLAYING CONTENT SET**

(71) Applicant: **Catherine G. Lin-Hendel**, Summit, NJ (US)

(72) Inventor: **Catherine G. Lin-Hendel**, Summit, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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(22) Filed: **Jun. 9, 2015**

(65) **Prior Publication Data**

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Related U.S. Application Data

(63) Continuation of application No. 14/463,870, filed on Aug. 20, 2014, now Pat. No. 9,053,205, which is a continuation of application No. 13/361,826, filed on Jan. 30, 2012, now Pat. No. 8,850,352, which is a continuation of application No. 12/753,749, filed on Apr. 2, 2010, now Pat. No. 8,108,792, said application No. 14/463,870 is a continuation of application No. 11/924,582, filed on Oct. 25, 2007, now Pat. No. 7,712,044, and a continuation of application No. 10/052,692, filed on Jan. 19, 2002, now Pat. No. 7,308,653.

(60) Provisional application No. 60/262,998, filed on Jan. 20, 2001.

(51) **Int. Cl.**

G06F 3/0485	(2013.01)
G06F 17/30	(2006.01)
G06F 3/0484	(2013.01)
G06F 3/0481	(2013.01)

(52) **U.S. Cl.**

CPC ***G06F 17/30905*** (2013.01); ***G06F 3/0485*** (2013.01); ***G06F 3/04817*** (2013.01); ***G06F 3/04842*** (2013.01); *G06F 2216/07* (2013.01)

(58) **Field of Classification Search**

CPC H04L 29/06; H04L 29/0809; H04L 29/08072; G06F 3/0485; G06F 3/04855; G06F 3/04847; G06F 3/048; G06F 3/0481; G06F 3/04812; G06F 3/04842; G06F 17/24; G06F 17/241; G06F 3/0482; G06F 17/30

See application file for complete search history.

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6,940,488	B1 *	9/2005	Siddiqui	G06F 3/0312 345/163
2004/0117831	A1 *	6/2004	Ellis	H04N 5/44543 725/53

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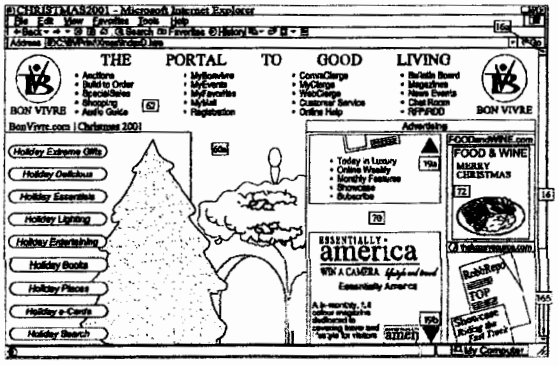
(74) *Attorney, Agent, or Firm* — Barnes & Thornburg LLP; Thomas J. McWilliams; Edward F. Behm, Jr.

(57) **ABSTRACT**

An automatic scrolling mechanism converts an information repository into media that can actively present and "push" information to the users/viewers while retaining existing "pull" and interactivity functions. Automatic scrolling can be controlled by placing a cursor on control icons, such as boxes, lines, and arrow clusters. While the cursor is on an icon, automatic scrolling brings into view content that extends beyond the field of view. The scrolled content is moved into the field of view of the display window in a predetermined direction designated by the icon. Sub-windows are also designed to be independently and automatically scrolled or floated with respect the main window. Links created in an information repository may be automatically activated to retrieve the linked information, and to automatically present and scroll the information. As the content is automatically scrolled, the repository is pushed and the user is allured to further navigate through the repository.

26 Claims, 17 Drawing Sheets



7. The method of claim 1, wherein the automated state of moving of the set of content being displayed in the designated area is interrupted or changed in response to a user command;

the method further comprising a user interaction mechanism set programmed for conveying at least one of the following user commands to the displaying of content sets in the display area:

pausing an ongoing automated moving of the displaying set of content,

resuming an automated changing of the displaying set of content after pausing,

changing the direction of automated scrolling when the changing is a visibly directional scrolling,

initiating an automated changing that is a visibly directional scrolling in a certain direction,

increasing the speed of the automated scrolling change,

decreasing the speed of automated scrolling change, or

initiating an automated scrolling change of the displaying set of content when the displaying is stationary.

8. The method of claim 7, wherein the user interaction mechanism set includes a set of actionable icons displaying in the designated display area, each icon symbolically signifying a command.

9. The method of claim 7, wherein the display device is a conductive touch sensitive display device, and

the user interaction mechanism set further comprises in conjunction with the conductive touch device, receiving input via a finger or an electronic pen touching the conductive touch sensitive display device,

in response to the received input, interpreting a specific user command, including at least one of the following commands:

initiate an automated visible scrolling change of displaying content in a certain direction,

changing the direction of the automated visible scrolling change,

increasing the speed of automated visible scrolling change,

decreasing the speed of automated scrolling,

pausing the automated scrolling, or

resuming the automated scrolling after pausing.

10. The method of claim 7, wherein the mechanism set further comprises, in response to a user activity, changes a displaying status, further comprising:

in response to the user activity received during a stationary period of the displaying a set of content, initiating the automated moving of the displaying set of content;

in response to the user activity received during an automated moving of the displaying a set of content, pausing the moving; and

in response to the user activity received during a pause, resuming the automated moving;

the set of actionable mechanisms are programmed to change an ongoing automated visible directional scrolling and at least one mechanism in the mechanism set that is present during a visible directional scrolling of the sets of content being displayed will result in one of the following change of displaying status:

stops scrolling,

initiate scrolling in the same direction,

speed up the scrolling in the same direction,

slow down scrolling in the same direction,

pausing scrolling, and

resume scrolling after pausing:

the displaying further comprising a directional mechanism opposite to a present scrolling direction will reverse the scrolling direction.

11. A system for interactively displaying digital content on an electronic display device, the system manipulating the digital content to display in a dynamic and user friendly manner, the system comprising at least one computing device comprising a non-transitory computer readable storage media further comprising executable instructions, further comprising:

at least one hardware processor coupled to the non-transitory computer readable storage media which executes the instructions and is configured to:

display a page of content on an interactive display screen of the device, wherein the page comprises a designated area for displaying one or more of a plurality of sets of content wherein the space required to display the plurality of sets of content collectively is larger than the space available in the designated area at a given point in time;

display, in the designated area, a first set of content of the plurality of sets of content for a first period of time; and

automatically moving, into the designated area and replacing the first set of content, a second set of content of the plurality of sets of content for a second period of time, thus continually and automatically progressing to display a next set of content of the plurality of sets of content by replacing the immediate preceding set of content currently displayed in the designated area;

wherein each set of content comprises at least one actionable link linking to additional actionable content related to an object represented in the respective set of content currently being displayed in the designated area; and

display, upon activation of the at least one of the actionable links, the additional content related to the object by the display device, separately from the displaying of the each set of content in the designated area.

12. The system of claim 11, wherein the moving of the set of content displaying in the designated area comprises a directional scrolling mechanism.

13. The system of claim 11, wherein each set of content displayed in the designated display area comprises a set of pictorially represented objects; at least one of the pictorial representations of the objects is associated with the actionable link linking to additional content including at least one of information or the actionable link concerning the represented object.

14. The system of claim 11, wherein the set of pictorially represented objects is a set of thumbnails of pictorial representations of objects.

15. The system of claim 13, wherein the additional content linked to a represented object in a displayed set of content comprises at least one actionable link for conducting an online activity related to the object.

16. The system of claim 15, wherein the online activity comprises an online commerce activity.

17. The system of claim 11, wherein the automated state of moving of the set of content being displayed in the designated area is interrupted or changed in response to a user command;

the method further comprising a user interaction mechanism set programmed for conveying at least one of the following user commands to the displaying of content sets in the display area:

pausing an ongoing automated moving of the displaying set of content,

resuming an automated changing of the displaying set of content after pausing,

changing the direction of automated scrolling when the changing is a visibly directional scrolling,

initiating an automated changing that is a visibly directional scrolling in a certain direction,

increasing the speed of the automated scrolling change, decreasing the speed of automated scrolling change, or initiating an automated scrolling change of the displaying set of content when the displaying is stationary.

18. The system of claim **17**, wherein the user interaction mechanism set includes a set of actionable icons displaying in the designated display area, each icon symbolically signifying a command.

19. The system of claim **17**, wherein the display device is a conductive touch sensitive display device, and

the user interaction mechanism set further comprises in conjunction with the conductive touch device, receiving input via a finger or an electronic pen touching the conductive touch sensitive display device,

in response to the received input, interpreting a specific user command, including at least one of the following commands:

initiate an automated visible scrolling change of displaying content in a certain direction,

changing the direction of the automated visible scrolling change,

increasing the speed of automated visible scrolling change,

decreasing the speed of automated scrolling,

pausing the automated scrolling, or

resuming the automated scrolling after pausing.

20. The system of claim **17**, wherein the mechanism set further comprises, in response to a user activity, changes a displaying status, further comprising:

in response to the user activity received during a stationary period of the displaying a set of content, initiating the automated moving of the displaying set of content;

in response to the user activity received during an automated moving of the displaying a set of content, pausing the moving; and

in response to the user activity received during a pause, resuming the automated moving;

the set of actionable mechanisms are programmed to change an ongoing automated visible directional scrolling and at least one mechanism in the mechanism set that is present during a visible directional scrolling of the sets of content being displayed will result in one of the following change of displaying status:

stops scrolling,

initiate scrolling in the same direction,

speed up the scrolling in the same direction,

slow down scrolling in the same direction,

pausing scrolling, and

resume scrolling after pausing;

the displaying further comprising a directional mechanism opposite to a present scrolling direction will reverse the scrolling direction.

21. A method for displaying and instructing the browsing of and interacting with complex digital content on an electronic display, the method comprising:

automatically scrolling primary content on a primary display screen at a desired speed and direction; and

suspending a small boxed stationary display area over the scrolling primary content on the primary display screen;

wherein the small boxed stationary display area displays relevant instructions for user action related to the primary content;

the automated scrolling further comprises, in response to a user interaction with the small boxed stationary display area:

suspending, re-initiating, or altering the speed of the automated scrolling.

22. The method claim **21**, wherein the user action instructions displayed in the small boxed display area further comprises a mechanism set for user interaction, comprising a mechanism for advancing a level of instruction, advancing a level of user action, repeating previous instructions, or page to next instructions.

23. The method of claim **21**, wherein the primary content is an instructional manual, and the user action instructions displayed in the small box display area are practice actions for the user to make in relation with the displayed portions of the manual.

24. A system for displaying a complex user interactive content that instructs user to make a set of user actions relevant to the portion of primary content being displayed, the system comprising at least one computing device comprising a non-transitory computer readable storage media further comprising executable instructions, further comprising:

at least one hardware processor coupled to the non-transitory computer readable storage media which executes the instructions and implements:

automatically scrolling primary content on a primary display screen at a desired speed and direction; and

suspending a small boxed stationary display area over the scrolling primary content on the primary display screen;

wherein the small boxed stationary display area displays relevant instructions for user action related to the primary content;

the automated scrolling further comprises, in response to a user interaction with the small boxed stationary display area:

suspending, re-initiating, or altering the speed of the automated scrolling.

25. The system of claim **24**, wherein the user action instructions displayed in the small boxed display area further comprises a mechanism set for user interaction, comprising a mechanism for advancing a level of instruction, advancing a level of user action, repeating previous instructions, or page to next instructions.

26. The system of claim **24**, wherein the primary content is an instructional manual, and the user action instructions displayed in the small box display area are practice actions for the user to make in relation with the displayed portions of the manual.

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(54) **AUTOMATED CHANGING OF A CONTENT SET DISPLAYING IN A DESIGNATED DISPLAY AREA OF A WEBPAGE DISPLAYING ON A DISPLAY SCREEN OF A BROWSER**

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(51) **Int. Cl.**

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(58) **Field of Classification Search**

CPC G06F 3/048; G06F 3/0481; G06F 3/0482; G06F 3/0485; G06F 3/04842; G06F 3/04855; G06F 3/04847; G06F 17/24; G06F 17/241; G06F 17/30; H04L 29/06; H04L 29/0809; H04L 29/08072

See application file for complete search history.

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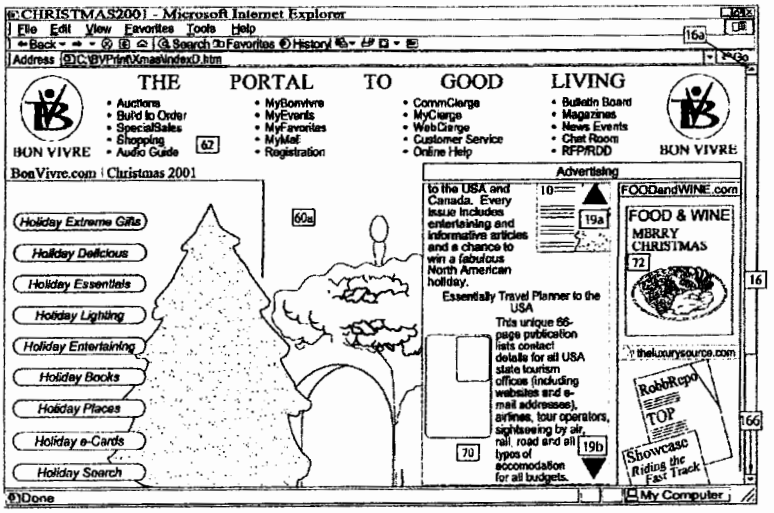
(57) **ABSTRACT**

A method and system to program multiple sets of digital content to be displayed in time sequence in a designated display area in a webpage, and automatically changing the displaying content-set, cycling through the multiple sets of content in the designated display area without user initiated action for each change of the displaying content-set.

24 Claims, 17 Drawing Sheets



woman **120**, instructing or alluring the user to move the cursor onto the graphical women icon **120***a* and click. The automated feature of the link navigates the user to the women's business formal section.

The floating instruction box **110** contains instructions regarding what to do, and contains active links **131**, **133**, **135** and **137** to navigate to additional information. The help button **140** provides access to additional instructions. The feedback button allows the user to provide feedback. The "floating" feature of the floating instruction box **110** allows such box to be within view so that it can be accessed anytime as the main pages **100** are scrolled. It can also be "double clicked" out of view, or "double clicked" back into view, or controlled by any desirable control symbol or convention, such as the standard "-" window-minimizing icon in Microsoft applications. As the user interacts with the instructions in the floating instruction box **110**, a new page is displayed (navigated to) and new instructions relevant to such new page appear in the floating instruction box **110**, so that the user does not have to go else where to look for help/guide/instruction material.

All of the educational or help/guide/instructional material has instructions at a certain place on a page, or even previous pages. Therefore, when the user wants to look at it again, the user can scroll or page back to where the instruction was—if it is remembered where it was seen, and lose the place where you are actually working on, and needing those instructions that was way back where you don't remember.

The floating instructional box **110** further includes <P Pages N> for moving to previous or next pages when the <P or N> is clicked.

In the exemplary embodiment, if the user clicked on the graphical women icon **120***a*, FIGS. **5**C, **5**D and **5**E may commence. The women icon **120***a* in the floating instructional box **110** is just a replicate of the women **120** in the page **100**—representing women's business clothes. However, if the women **120** were dressed in ball gowns, prom or formal wear, it would be associated with the navigational link associated therewith. The "Steps" in the Categories section of the floating instruction box **10** allows the user to navigate to any sub category desired.

It should be noted the primary difference in FIGS. **5**A and **5**B is that the main page **100** is scrolling.

Referring now to FIGS. **5**C, **5**D and **5**E, these figures represent the pages or part of pages **150***a*, **150***b*, **150***c* for navigating through the women's business apparel. The primary difference in these figures is that the pages are automatically scrolling thus the women's business apparel is "pushed" and presented to the user. The floating instruction box **110** remains essentially stationary. The user can select various elements in the displayed selection array to see additional information, or to buy something. The illustrations of FIGS. **5**C, **5**D and **5**E illustrates that the website pages actively "push" the content to the viewer. In other words, the website actively navigates for the user and does not sit still waiting for the user's input before any navigation commences.

FIG. **5**F illustrates the floating instruction box **110'** when the help button **140** is clicked. The floating instruction box **110'** includes a drop down dialog box **160** to explain the arrangement of the page.

FIGS. **5**A-**5**F include a sub-window **170** that can be continuously scrolled automatically independently of the main window of the pages **100**, **150***a*, **150***b* and **150***c*.

The present invention also provides a mechanism to make the otherwise passive browser/web media active and interactive, and TV/Video media interactive, enabling both media with pushing and pulling functions.

As can be appreciated, the present invention provides a method of automatically displaying and navigating through a media, whether TV/Video or Computer/Browser; and, automatically scrolling the content to push and allure navigation through the media.

The website exemplified in FIGS. **5**A through **5**F has multiple categories wherein each category has multiple sub-categories. The method provides for displaying a floating dynamic instruction box **110**, **110'** overlaid on the page that displays navigational links for alluring the user to further navigate to a category or to a sub-category.

The page **100** is a website home page. The page **100** includes at least one blinking picture or link. The method dynamically changes the floating dynamic instruction box **110**, **110'** in response the at least one blinking picture to entice the user to further navigate.

Accordingly, the method automates sequences of blinking links in a page; and activates the blinking links of the sequences to automatically and sequentially push navigation within the website. The sequences may be programmed based on a user's demographics or profile, or any other suitable criteria.

The pages **100**, **150***a*, **150***b* and **150***c* include a sub-window **170**. The sub-window **170** can be automatically scrolled independently of the main window of pages **100**, **150***a*, **150***b* and **150***c*.

Numerous modifications to and alternative embodiments of the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the best mode of carrying out the invention. Details of the structure may be varied substantially without departing from the spirit of the invention and the exclusive use of all modifications, which come within the scope of the appended claims, is reserved.

The invention claimed is:

1. A method of programming a webpage of a website to time-share at least one designated displaying area of a part of the webpage to display a plurality of sets of content one set of content at a time, each for a pre-designated time interval when the webpage is accessed by a user through entering a uniform resource locater (URL) of the webpage into a web-browser on an interactive display screen of an electronic display device, the method comprising:

designating and defining the at least one designated displaying area in a user desired displaying area on a desired part of the webpage for displaying a plurality of sets of content;

designing a plurality of sets of content that a website owner most want users of the website to see on this part of the webpage, and program the plurality of sets of content to be displayed in the designated displaying area of the webpage and store them in the database of the webpage;

designating a time interval for displaying each set of the plurality of sets of content;

programming the displaying of the webpage to automatically display the plurality of sets of content one at a time in the designated displaying area of the webpage when the URL is entered into the web-browser by the user, each set of content displaying for a pre-designated time interval for the set of content, including:

after a first set of content of the plurality of sets of content displaying for a first interval of time, automatically removing the first set of content from the

designated displaying area, and moving into the designated displaying area a second set of content of the plurality of sets of content for a second interval of time, the second set of content replacing the first set of content so that there is continual and automatic progressing to display a next set of content of the plurality of sets of content by replacing an immediately preceding set of content displayed in the designated displaying area, and continually looping through the plurality of sets of content when no user command is issued for a change, automated looping requiring no user action, except for when an initiation action to commence automated looping is desired; and

programming a user-website interaction mechanism used with the designated displaying area of the webpage for the user to receive instructions from the website and for the website to receive a user command.

2. The method according to claim **1**, wherein a content set in the plurality of content sets includes an image.

3. The method according to claim **1**, wherein a content set in the plurality of content sets includes a video clip.

4. The method according to claim **1**, wherein a content set in the plurality of content sets includes an animated image with a portion of the animated image changing in time.

5. The method according to claim **1**, wherein a content set in the plurality of content sets is embedded with a link, linking to information related to the content set.

6. The method according to claim **1**, wherein a mechanism of changing from displaying one content set to a next content set is a visible scrolling movement of a displaying content set.

7. The method according to claim **1**, wherein a mechanism of changing from displaying one content set to a next content set appears to be a sudden change to human eye, in a fashion of an un-animated slide show.

8. The method according to claim **1**, wherein a mechanism of changing from displaying one content set to a next content set is an animated change that takes place in a time-duration discernable to human eye, in a fashion of an animated slide-show.

9. The method according to claim **1**, wherein a set of floating directional indicators is displayed overlapping a displaying content set to allow a viewer to access a previously displayed content set, or to skip to a next content set in a lineup of the plurality of content sets.

10. The method according to claim **1**, wherein a set of floating non-directional indicators is displayed overlapping a part of a displaying content set, while indicating which of the plurality of content sets is presently displaying in the designated display area and allowing a user to command the displaying of any set in the plurality of content sets programmed to be displayed in the designated display area.

11. The method according to claim **1**, wherein a content set in the plurality of content sets is designed to represent a theme story, a news story, a line of products or services, or a product or service.

12. A method as in claim **1**:

wherein at least one set of content in the plurality of sets of content is embedded with at least one actionable link linking to additional content related to an object represented in the respective set of content to be displayed in the designated area; and

wherein, upon activation of the at least one of the actionable links by a user indicating interest, the additional content linked by the activated link is displayed on the display device for the user.

13. A system comprising a plurality of networked computers and electronic display devices loaded with software programs including website hosting utilities, databases, web-browser software and webpage programming and displaying software linking to the web-browser and the electronic display devices; the system further comprising:

a webpage of a website programmed to time-share a designated displaying area in a part of the webpage to display a plurality of sets of content one set of content at a time, each for a pre-designated time interval when the webpage is accessed by a user through entering a uniform resource locater (URL) of the webpage into a web-browser on an interactive display screen of an electronic display device, the system enables:

the designation and defining of a displaying area on a part of the webpage for displaying

a plurality of sets of important content that a website owner most wants users of the website to see in this designated display area,

designing the plurality of sets of content to store in a easily updatable fashion in the database for the webpage and designating a desired time interval to display each set of the plurality of the content set and store the time intervals in an easily updatable fashion in the database of the webpage,

displaying the plurality of sets of content in the designated displaying area of the webpage displaying in a web-browser each for a designated time interval when a user enters the URL of the webpage into the web-browser on the electronic display device;

the web-browser displaying the webpage on the electronic device automatically displays the plurality of sets of content one at a time in the designated displaying area of the webpage when the URL is entered into the web-browser by the user, each set of content displaying for a pre-designated time interval for the set of content, including:

after a first set of content of the plurality of sets of content displaying for a first interval of time, automatically removing the first set of content from the designated displaying area, and moving into the designated displaying area a second set of content of the plurality of sets of content for a second interval of time, the second set of content replacing the first set of content so that there is continual and automatic progressing to display a next set of content of the plurality of sets of content by replacing an immediately preceding set of content displayed in the displaying area, and continually looping through the plurality of sets of content when no user command is issued for a change, automated looping requiring no user action, except for when desired an initiation action to commence automated looping; and

a mechanism allowing user-website interaction used with the designated displaying area of the webpage for the user to receive instructions from the website and the website to receive a user command.

14. The system according to claim **13**, wherein a set of floating non-directional indicators is displayed overlapping a displaying content set, while indicating which of the plurality of content sets is presently displaying in the designated display area and allowing a user to command display of any set in the plurality of content sets programmed to be displayed in the designated display area.

15. The system according to claim 13, wherein a content set in the plurality of content sets is designed to represent a theme story, a news story, a line of products or services, or a product or service.

16. The system according to claim 13, wherein a content set in the plurality of content sets includes an image.

17. The system according to claim 13, wherein a content set in the plurality of content sets includes a video clip.

18. The system according to claim 13, wherein a content set in the plurality of content sets includes an animated image with a portion of the image changing in time.

19. The system according to claim 13, wherein a content set in the plurality of content sets is embedded with a link, linking to information related to the content set, when the link is activated by a user, the information is brought forth to display on the electronic display device for the user.

20. The system according to claim 13, wherein a mechanism of changing from displaying one content set to a next content set is a visible scrolling movement of a displaying content set.

21. The system according to claim 13, wherein a mechanism of changing from displaying one content set to a next content set appears to be a sudden change to human eye, in a fashion of an un-animated slide show.

22. The system according to claim 13, wherein a mechanism of changing from displaying one content set to a next content set is an animated change that takes place in a time-duration discernable to human eye, in a fashion of an animated slide-show.

23. The system according to claim 13, wherein a set of floating directional indicators is displayed overlapping a displaying content set to allow a viewer to access a previously displayed content set, or to skip to a next content set in a lineup of the plurality of content sets.

24. The system according to claim 13, wherein a content set in the plurality of content sets is embedded with a link, linking to information related to the content set.

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